This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

**Usage guidelines**

Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

+ *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.

+ *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.

+ *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.

+ *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

**About Google Book Search**

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at `http://books.google.com/`

# *TIME TABLE—FACULTY OF LAW.

| *Hours.* | *Monday.* | *Tuesday.* | *Wednesday.* | *Thursday.* | *Friday.* |
|---|---|---|---|---|---|
| 9 to 10 | Shipping | Const. History | Const. Law | Const. History | Comp. Law. |
| 10 to 11 | Conflict of Laws | Torts | | | International Law. |
| 11 to 12 | | | Sales | | Equity. |
| 12 to 1 | | | Contracts | Moot Court | Contracts. |
| 4.30 to 5.30 | Real Property | | Pleadings | Evidence | |
| 8 to 9 | | | | | |

*Subject to alteration.

# CALENDAR

OF

# DALHOUSIE UNIVERSITY

HALIFAX - - NOVA SCOTIA

1908-09.

HALIFAX:
PRINTED FOR THE UNIVERSITY BY MCALPINE PUBLISHING CO., LTD.
1908.

# 1908-09.

# TIME TABLE—FACULTY OF ARTS AND SCIENCE.

| Hours. | Monday. | Tuesday. | Wednesday. | Thursday. | Friday. |
|---|---|---|---|---|---|
| 9-10 | Chemistry 1 .. | Chem. 2, 3, 4. | Chemistry 1 .. | Chemistry 2, 3, 4 | Chemistry 1 .. |
| | German 3 ... | French 3 . .. | German 3..... | French 3..... | German 3 .... |
| | Math. 2..... | Math. 1 . .. | Math. 2 ..... | Math. 1..... | Math. 2 ..... |
| 10-11 | Latin 2..... | Greek 1 ..... | Latin 2..... | Greek 1 .... ... | Latin 2. ..... |
| | Math. 1..... | Math. 2 ..... | Math. 1..... | Math. 2 ..... | Math. 1 ..... |
| | Philos. 5..... | English 3. ... | Philos. 5..... | English 3..... | ... ..... .. |
| | History 1..... | History 2.... | History 1..... | History 2..... | History 1 ... |
| | .. ..... | Mineralogy 1.. | ..... | Mineralogy 1.. . | ..... |
| 11-12 | Latin 1... ... | Greek 2 ... | Latin 1..... | Greek 2 ..... | Latin 1. .... |
| | Physics 1..... | Physics 2.... | Physics 1..... | Physics 2..... | Physics 1..... |
| | ..... | Pol. Econ. 1 .. | ..... | Pol. Econ. 1 .... | ..... ..... |
| | Geology 6 .... | Philos. 2.. ... | Geology 6 .... | Philos. 2 ..... | Geology 6 .... |
| 12-1 | English 2 .... | English 1. .. | English 2 ... | English 1. ..... | English 2..... |
| | Chem. 4 ..... | Astronomy ... | ..... .. | Astronomy ..... | Adv. Classics . |
| | Latin 1. .... | Greek 3 ..... | Latin 3..... | Gr ek 3 ..... | Greek 1 ..... |
| | Latin 3..... | Geology 1 .... | Latin 1..... | Geology 1 ..... | Geology 2 .... |
| | ..... | Philos. 1 ..... | ..... | Philos. 1..... | .... ..... |
| 2-3 | German 2..... | French 2 .... | German 2... . | French 2..... | German 2 .... |
| | ..... | Biology ..... | Miner. (Lab.). | ..... ..... | Miner. (Lab.). |
| | ..... | Geology 5 .... | Geol. 1 (Lab.). | Geology 5 ..... | Geol. 1 (Lab.). |
| 3-4 | German 1.... | French 1 ..... | German 1..... | French 1 ..... | German 1 .... |
| | Philos. 6 ..... | Biology ..... | Miner. (Lab.).. | ..... | Philos. 6..... |
| | Chem. (Lab.) . | Physics 6 .... | Chem. (Lab.).. | Physics 6..... | Geol. 1 (Lab.). |
| | ..... | Sociology..... | Geol. 1 (Lab.). | Sociology..... | Miner. (Lab.). |
| 4-5 | Geology 3.... | Geology 2 ... | Geology 3, ... | Geology 2 ..... | Geology 3 .... |
| | Philos. 1..... | Physics 6..... | ..... ..... | Physics 6..... | ..... |
| | Chem. (Lab.) . | English 4. .... | Chem. (Lab.). | English 4..... | Education .... |
| 5-6 | Chem. (Lab.) . | Physics 6 .... | Chem. (Lab.).. | Physics 6..... | ..... |
| | ..... | ..... | ..... | ..... | ..... |

Saturdays: Chemistry 3, 9—10 A. M.
Biology, 11 A. M.—1 P. M.
Geology, 1, 2—Field and Library work throughout the day.
Mining and Metallurgical Excursions and Exercises throughout the day.

N. B.—The days and hours of meeting of classes not mentioned in this Time Table will be announced at the opening of the session.

# 1908-09.

## TIME TABLE—FACULTY OF ENGINEERING.

| Hours. | Monday. | Tuesday. | Wednesday. | Thursday. | Friday. |
|---|---|---|---|---|---|
| 9–10 | Chem. 1 A.... | Chem. 4..... | Chem. 1 A... | Chem. 4..... | Chem. 1 A.... |
| | Math. 2 ..... | Math. 1..... | Math. 2 ..... | Math. 1..... | Math. 2..... |
| | Mining 1..... | Mining 3..... | Mining 1..... | Mining 3..... | Mining 1 ..... |
| | Hydraulics 1.. | Hydraulics 2.. | R'y. Econ.... | Hydraulics 1.... | Hydraulics 1.. |
| | ..... | ..... | Surveying 3... | Metall. 4..... | ..... |
| 10–11 | Math. 1..... | Math. 2 ..... | Math. 1 ..... | Math. 2 ..... | Math. 1..... |
| | Metall. 3..... | Mineralogy.... | Metall. 3..... | Mneralogy . .... | ..... |
| | Surveying 1... | Surveying 2 .. | Surveying 1... | Surveying 2..... | Surveying 1 .. |
| | Drawing 2.... | Mining 2..... | Drawing 2.... | Mining 2. ..... | Drawing 2.... |
| | Geol. 4. ..... | ..... ..... | Geol. 4.. .... | Metall. 4..... | Geol. 4..... |
| 11–12 | Physics 1..... | Physics 2 B... | Physics 1..... | Physics 2 B..... | Physics 1..... |
| | Geol. 6, 7. .. | Metall. 6. .... | Geol. 6, 7.... | Metall. 4, 6. ... | Geol. 6, 7..... |
| | Structures 1.. | ..... ..... | Structures 1. | ..... ... | ..... |
| 12–1 | Chem. 4..... | English 1 ... | ..... | English 1 ..... | ..... |
| | Metall. 2.... | Geol. 1..... | Metall. 2..... | Geol. 1..... | Metall. 2..... |
| | Mechanics .... | Structures 2.. | Mechanics .... | Structures 2.... | Mechanics.... |
| | ..... | ..... | ..... ... | Metall. 4... .... | ..... |
| 2–3 | German 2 ... | French 2..... | German 2 .. | French 2 ..... | German 2 .... |
| | ..... | Metall. 1..... | Geol. 1 (Lab.). | Metall. 1, 4..... | Geol. (Lab.)... |
| | ..... .. | ... ..... | Miner. (Lab ). | ..... ..... | Miner. (Lab.). |
| | ..... | ..... | ..... | ... ..... .. | Metall. 4 ..... |
| 3–4 | German 1 ... | French 1..... | German 1 .... | French 1 ..... | German 2 .... |
| | Chem. (Lab.).. | Phys. (Lab.) .. | Chem. (Lab.). | Physics (Lab.) .. | Metall. 4..... |
| | .. .... ..... | Metall 1 .... | Geol. 1 (Lab.). | Metall. 1, 4..... | Geol. 1 (Lab.). |
| | Structures 2.. | Drawing 1.... | Miner. (Lab.).. | Drawing 1..... | Miner. (Lab.). |
| 4–5 | Chem. (Lab.).. | Phys. (Lab.).. | Chem. (Lab.).. | Phys. (Lab.).... | Metall. 4 ..... |
| | Geol. 3..... | Metall. 1..... | Geol. 3 ..... | Metall. 1, 4..... | Geol. 3 ..... |
| | .... ..... | Drawing 1.... | ..... ..... | Drawi g 1..... | ..... |
| 5–6 | Chem. (Lab.).. | Phys. (Lab.).. | Chem. (Lab.).. | Phys. (Lab.) ... | Met .ll. 4..... |
| | ..... | Metall. 1 ..... | ..... | Metall. 1, 4..... | ..... |
| | ..... | Drawing 1 ..... | ... ..... | Drawing 1 ..... | ..... |

Saturdays: Geology—Field work throughout the day.
Mining and Metallurgical excursions throughout the day.

N. B.—The days and hours of meeting of classes not mentioned in this Time Table will be announced at the opening of the session.

# CONTENTS


| THE UNIVERSITY :— | PAGE. |
|---|---|
| Almanac | v |
| Board of Governors | viii |
| Senatus Academicus | viii |
| Academic Staff | ix |
| INTRODUCTION :— | |
| Historical Sketch | 1 |
| Constitution | 3 |
| Degrees | 4 |
| Equipment | 5 |
| ADMISSION | 8 |
| Admission to Classes | 8 |
| Matriculation Examinations, Junior and Senior | 8 |
| Admission to Advanced Standing | 14 |
| UNIVERSITY REGULATIONS | 15 |
| Academic Year | 15 |
| Registration | 15 |
| Residence | 15 |
| Church Attendance | 16 |
| Discipline | 16 |
| University Library | 16 |
| Conduct of Examinations | 17 |
| Academic Costume | 17 |
| Conferring of Degrees | 18 |
| FACULTY OF ARTS AND SCIENCE :— | |
| DEGREES | 19 |
| Course for B. A.:— | |
| Ordinary Course | 20 |
| Choice of Electives | 20 |
| Affiliated Courses | 21 |
| Order of Classes | 21 |
| Course for B. Sc. | 23 |
| Affiliated Courses | 23 |
| Order of Classes | 24 |
| Honour Courses | 25 |
| Degrees with Distinction | 34 |
| Degrees with Honours | 33 |
| Degree of M. A. | 34 |
| Degree of M. Sc. | 35 |
| Degree of B Mus | 36 |
| Certificate in Teaching | 37 |
| General Regulations for Degrees | 38 |
| Matriculation | 38 |
| Attendance | 38 |
| Class Work | 39 |
| Order of Classes | 40 |
| Examinations | 40 |
| Sessional | 40 |
| Distinction | 40 |
| Supplementary | 40 |
| Special | 41 |
| Prizes and Scholarships | 41 |
| Graduation Prizes | 41 |
| Undergraduate Prizes | 42 |
| Entrance Scholarships | 42 |
| Rhodes Scholarship | 43 |
| 1851 Exhibition | 44 |
| Fees | 47 |
| FACULTY OF ENGINEERING :— | |
| DEGREES— | |
| Courses for B. E | 49 |
| Civil Engineering | 50 |
| Mining and Metallurgical Engineering | 52 |
| B. E. with Distinction | 54 |
| Elective Courses | 54 |
| Regulations | 54 |
| Prizes and Scholarships | 55 |
| Fees | 56 |
| Courses of Instruction | 57 |
| FACULTY OF LAW :— | |
| Courses of Instruction | 87 |
| Admission of Students | 90 |
| Degree of LL.B | 91 |
| Course of Study | 92 |
| Examinations | 92 |
| Moot Courts | 92 |
| Fees | 93 |
| FACULTY OF MEDICINE :— | |
| Courses of Instruction | 94 |
| Academic Year | 98 |
| Degree of M. D. C. M | 98 |
| Matriculation | 98 |
| Primary M. D. C. M | 100 |
| Final M. D. C. M | 103 |
| Medals and Prizes | 110 |
| Sponsio Academics | 110 |
| Fees | 111 |
| Note—Five Years Course | 111 |
| First Professional | 112 |
| FACULTY OF DENTISTRY :— | |
| Courses of Instruction | 116 |
| Degree of D. D. S | 113 |
| Matriculation | 116 |
| Examinations | 117 |
| First Professional | 118 |
| Second Professional | 119 |
| Third Professional | 121 |
| Final Professional | 122 |
| Fees | 123 |
| INSTITUTIONS :— | |
| Libraries | 124 |
| Alumni Association | 126 |
| Student Societies | 128 |
| Affiliated Colleges | 133 |
| UNIVERSITY LISTS :— | |
| Degrees Conferred 1908 | 135 |
| Honours, etc., 1908 | 137 |
| Examinations 1907-8 | 138 |
| Students 1907-8 | 156 |

# UNIVERSITY ALMANAC, 1908-9.

## 1908.

Aug. 13. Th.—Last day for receiving applications for Autumn Preliminary Examination (Provincial Medical Board).

17. M.—Last day for receiving notices of Supplementary Examinations (Medical Faculty).

19. W.—Last day for receiving applications for Autumn Professional Examinations (Provincial Medical Board).

25. Tu.—Last day for receiving notices of Supplementary Examinations (Law Faculty).

27. Th.—Session begins (Med. Fac.) Preliminary Examination (Prov. Med Board) begins at 9 a. m., at Dalhousie College.

31. M.—Supplementary Examinations begin (Medical Faculty).
Results Preliminary Examination (Prov. Med. Board) declared, and certificates issued, 10 a. m.
Registration and Payment of Class Fees (Medical Faculty) 11 a. m.

Sept. 1. Tu.—Session begins (Law Faculty).
Lectures begin at Halifax Medical College.
10 a. m., Registration and Payment of Class Fees (Law Faculty).
3 p. m., Supplementary Examinations (Law Faculty).

2. W.—Lectures begin (Law Faculty).

7. M.—Last day for receiving notices of Supplementary Examinations (Arts, Science and Engineering Faculties).

8. Tu.—Registration of Candidates for Matriculation and Scholarship Examination (Arts, Science and Engineering Faculties).

9. W.—Examination for Junior and Senior Matriculation, and for Entrance Scholarships (Arts, Science and Engineering Faculties).
9 a. m., Latin.
3 p. m., Greek.

10. Th.—9 a. m., Geometry.
11 a. m., Trigonometry.
3 p. m., Arithmetic, Algebra.

11. F.—9 a. m., History and Geography.
3 p. m., English.

12. S.—9 a. m., French.
3 p. m., German.

14. M.—9 a. m., Chemistry.
9 a. m., Supplementary Examinations begin (Arts, Science and Engineering Faculties).

16. W.—9 a. m., Meeting of Faculties of Arts, Science and Engineering.
3 p. m., CONVOCATION. Address by Professor Jones.

17. Th.—Registration and payment of class fees (Arts, Science and Engineering Faculties.

18. F.—Lectures begin (Arts, Science, Engineering, and Medical Faculties).

22. Tu.—After this date Registration fee is increased by $1.00.
Intimation as to elective subjects to be made by undergraduates (Arts, Science and Engineering Faculties) on or before this day.

Oct. 8. Sa.—9 a. m., Meeting of Senate.

Oct. 15. Th.—Returns as to residence and church attendance to be made on or before this day.
Th.—Thanksgiving day. No lectures.
F. —Munro day. No lectures.
Nov. 7. Sa.—9 a. m., Meeting of Senate.
Dec. 5. Sa.—9 a. m., Meeting of Senate.
11. F. —Last day of lectures (Faculties of Arts, Science, Engineering and Medicine).
12. Sa.—Last day for receiving notices of Special Examinations (Arts, Science and Engineering Faculties).
Christmas Examinations (Arts, Science and Engineering Faculties) begin.
9 a. m., Philosophy 1 and 5; Structures 2.
3 p. m., French; Mechanics.
14. M. —9 a. m., Chemistry 1; Physics 2.
3 p. m., Physics 1 and 2; Geology 2; Drawing 1.
15. Tu.—9 a. m., Latin; Mining 1.
3 p. m., English 1; Education; Hydraulics 1 and 2.
16. W.—9 a. m., Mathematics; Philosophy 6; Chemistry 2 and 4.
3 p. m., German.
17. Th.—9 a. m., Mathematics; Political Economy.
3 p. m., English 2 and 4; Geology 3.
18. Fri.—9 a. m., Greek; Biology; Surveying 1 and 2; Railway Economics.
3 p. m., History 1 and 2; Mineralogy.
19. Sa.—Christmas vacation begins.

1902.

Jan. 5. Tu.—Lectures resumed (Arts, Science, Engineering, Law, and Medical Faculties).
9. Sa.—9 a. m., Meeting of Senate.
Feb. 6. Sa.—9 a. m., Meeting of Senate.
17. W.—Last day of lectures (Law Faculty).
18. Th.—Sessional Examinations begin (Law Faculty).
10 a. m., Equity.
3 p. m., Torts.
19. F. —10 a. m., Companies.
3 p. m., Crimes.
20. Sa.—10 a. m., Constitutional History, International Law.
22. M. —10 a. m., Constitutional Law.
23. Tu.—10 a. m., Shipping.
24. W.—10 a.m., Real Property; Ash Wednesday. No lectures.
25. Th.—10 a. m., Sales.
26. F. —10 a. m., Contracts; Conflict of Laws.
Mar. 5. Sa.—9 a. m., Meeting of Senate.
31. W.—Last day for receiving applications for Primary and Final M. D. C. M. Examinations and for Spring Professional Examinations (P. M. Board).
Last day for receiving M. A., M. Sc. and B. E. Theses.
Apr. 5. M. —Last day of Lectures (Faculties of Arts, Science, Engineering and Medicine.
6. Tu.—Spring Examinations (Faculties of Arts, Science, Engineering and Medicine) begin.
9.00 a. m., Philosophy 1 and 5; Mining 2.
3.00 p. m., Education; Mathematics.
7. W.—9.00 a. m., Practical Chemistry (Laboratory, 1st Division).
2.30 p. m., Practical Chemistry (Laboratory, 2nd Division); Hydraulics

April 8. Th.—9.00 a. m., Latin; Metallurgy 8 and 6.
3.00 p. m., French.
9. F. —Good Friday.
10. Sa.—9 a. m., English 2 and 4; Drawing 1; Structures 1 and 2.
3 p. m., Physics 2; Political Economy.
Certificates of Class Attendance, Med. Fac. Dalhousie, issued on presentation of Class Fee Receipts.
12. M. —Certificates of Class Attendance. Halifax Medical College, issued on presentation of Class Fee Receipts.
9 a. m., English 1; Physics 1; Geology 2; Additional Geology 1.
3 p. m., Physics 6, 7 and 8. Addit. Philosophy 1 and 5.
13. Tu.—9 a. m., Mathematics; Astronomy, Addit. English 3.
3 p. m., Addit. Latin; Geology 3.
14. W.—9 a. m., Chemistry 1; Addit. Education; Kinematics.
3 p. m., History 1 and 2.
Physiology and Histology, Medical Jurisprudence and Hygiene.
15. Th.—9 a. m., Greek; Junior Anatomy.
3 p. m., Chemistry 2, 3, 4.
Obstetrics and Diseases of Women and Children.
16. F. —9 a. m., Zoology; Geology 1; Geology 6; Additional English 1.
3 p. m., Senior Anatomy; Medicine; Addit. Geology 2.
17. Sa.—9 a. m., Philosophy 6; Hydraulics 2; Drawing 2; Surveying 2; Oral Exams. Chemistry; Anatomy, Physiology and Histology.
3 p. m., Botany; Surgery.
19. M. —9 a. m., Addit. Greek; Addit. French; Medical Physics. Clinical Medicine at V. G. H.; Mechanics.
3 p. m., German; Pathology and Bacteriology.
20. Tu.—9 a. m., Addit. Physics 1 and 2.
Clinical Surgery at V. G. H.; Mineralogy.
3 p. m., Addit. History; Addit. English 2; Materia Medica and Therapeutics.
21. W.—9 a. m., Addit. Mathematics; Addit. Philosophy 6; Designing.
2 p. m., Oral Exams.—Materia Medica and Therapeutics; Pathology and Bacteriology.
3 p. m., Addit. Political Economy; Surveying 3.
22. Th.—9 a. m., Addit. German; Metallurgy 2.
2 p. m., Oral Exams.—Surgery; Medicine; Obstetrics and Diseases of Women and Children; Medical Jurisprudence and Hygiene.
23. F. —Results of P. M. B. Professional Examinations declared.
26. M. —9 a. m., Meeting of Faculties of Arts, Science and Engineering.
27. Tu.—4 p. m., Meeting of Faculty of Medicine.
9 a. m., Meeting of Senate.
28. W.—10 a. m., Results of Examinations (Faculties of Arts, Science, Engineering and Medicine) declared.
29. Th.—3 p. m., Convocation.
May 6. Th.—9 a. m., Spring Preliminary Examinations (Provincial Medical Board) begin.
11. Tu.—4 p. m., Annual Meeting Medical Faculty.

---

N. B.—The dates of the Examinations are liable to change as circumstances may demand.

# Dalhousie University.

## BOARD OF GOVERNORS.

GEORGE S. CAMPBELL, ESQ., *Chairman.*
J. WALTER ALLISON, ESQ., *Vice-Chairman.*
HON. SIR CHARLES TUPPER, Bart., G. C. M. G., C. B., P. D., LL. D., (Cantab., Edin., and Queen's), P. C.
HIS WORSHIP THE MAYOR OF HALIFAX, *ex-officio.*
REV. JOHN FORREST, D. D., D. C. L., LL. D.
REV. JOHN MCMILLAN, D. D.
REV. ROBERT MURRAY, LL. D.
HON. WALLACE GRAHAM, A. B., *Judge of the Supreme Court.*
A. H. MACKAY, F. R. S. C., LL. D., *Superintendent of Education.*
D. A. CAMPBELL, ESQ., M. D.
HON. W. S. FIELDING, M. P., *Minister of Finance.*
THOMAS RITCHIE, ESQ.
HON. D. MACKEEN, *Senator.*
REV. F. H. W. ARCHBOLD.
CHARLES ARCHIBALD, ESQ., M. E.
HECTOR MCINNES, ESQ., LL. B.
HON. GEORGE MURRAY, *Premier of Nova Scotia.*
J. C. MACKINTOSH, ESQ.
HON. D. C. FRASER, *Lieutenant-Governor.*
R. M. MACGREGOR, B. A., M. P. P.

HECTOR MCINNES, LL. B., *Treasurer.*
H. B. STAIRS, B. A. LL. B., *Secretary.*

## SENATUS ACADEMICUS.

REV. JOHN FORREST, D. D., D. C. L., LL. D., *President.*
JOHN JOHNSON, M. A., LL. D.
RICHARD C. WELDON, M. A., PH. D., D. C. L., K. C.
JAMES LIECHTI, M. A., L. H. D.
BENJAMIN RUSSELL, M. A., D. C. L., J. S. C.
ARCHIBALD MACMECHAN, B. A., PH. D.
WALTER C. MURRAY, M. A., LL. D. *Secretary.*
HOWARD MURRAY, B. A., LL. D.
EBENEZER MACKAY, B. A. PH. D.
J. EDMUND WOODMAN, M. A., SC. D.
A. STANLEY MACKENZIE, B. A., PH. D., F. R. S. C.
HOWARD P. JONES, B. A., PH. D.
MURRAY MACNEILL, M. A.
E. ALBERT STONE, B. A. SC., M. E

# ACADEMIC STAFF.

## FACULTY OF ARTS AND SCIENCE.

REV. PRESIDENT FORREST, D. D. (Queen's), D. C. L. (Vind.) LL. D., (U. N. B.), *George Munro Professor of History and Political Economy.*

JOHN JOHNSON, M. A. (Dub.), LL. D. (Dal.), *Professor Emeritus.*

JAMES LIECHTI, M. A. (Vind.) L. H. D. (Muhl.), *Professor Emeritus.*

ARCHIBALD MACMECHAN, B. A. (Tor.), PH. D. (J. H. U.), *George Munro Professor of English Language and Literature.*

WALTER CHARLES MURRAY, B. A. (U. N. B.), M. A. (Edin.) LL. D. (Queen's), *George Munro Professor of Philosophy and Lecturer on Education.*

HOWARD MURRAY, B. A. (Lond.), LL. D. (Tor.), *McLeod Professor of Classics.*

EBENEZER MACKAY, B. A. (Dal.), PH. D. (J. H. U.), *McLeod Professor of Chemistry.*

JOSEPH EDMUND WOODMAN, M. A., S. D. (Harv.), *Professor of Geology and Mineralogy.*

A. STANLEY MACKENZIE, B. A. (Dal), PH. D. (J. H. U.), F. R. S. C. *Munro Professor of Physics and Lecturer on Astronomy.*

HOWARD P. JONES, B. A., (Vind.), PH. D. (Held.), *McLeod Professor of Modern Languages.*

MURRAY MACNEILL, B. A. (Dal.), M. A. (Harv.), *Professor of Mathematics.*

J. W. LOGAN, B. A. (Dal.), *Lecturer on Classics.*

ALEXANDER MCKAY, *Lecturer on Education.*

S. A. MORTON, M. A. (Dal.), *Lecturer.*

ROBERT MAGILL, M. A. and Fellow (Roy Univ. Ire.), PH. D. (Jena), *Lecturer on Philosophy.*

GEORGE K. BUTLER, M. A. (Dal.), *Lecturer on Classics.*

JAMES CARRUTHERS, *Lecturer on Elocution.*

A. MACLEAN SINCLAIR, *Lecturer on Keltic Literature and History.*

WILLIAM MATHESON FRASER, B. A., B. SC. (Dal.), *Lecturer on Biblical Literature.*

ALEXANDER DAVID FRASER, *Tutor in Classics.*

G. M. J. MACKAY, M. A. (Dal.), *Demonstrator in Chemistry.*

W. STEWART LINDSAY, B. A. (Dal.), *Demonstrator in Physics.*

————————, *Lecturer on Biology.*

F. H. TORRINGTON, MUS. D., *Examiner in Theory of Music.*

ROBERT LAING, M. A. (McGill), *Examiner in History of Music.*

*Dean of the College,* PROFESSOR H. MURRAY.

*Secretary of Faculty,* PROFESSOR H. P. JONES.

*Registrar,* PROFESSOR MACNEILL.

## FACULTY OF ENGINEERING.

JOHN FORREST, LL. D., *President and Munro Professor of Political Economy.*

ARCHIBALD MACMECHAN, PH. D. (J. H. U.), *Munro Professor of English.*

EBENEZER MACKAY, PH. D. (J. H. U.), *McLeod Professor of Chemistry.*

J. EDMUND WOODMAN, S. D. (Harv.), *Professor of Geology and Mineralogy.*

A. STANLEY MACKENZIE, PH. D. (J. H. U.), *Munro Professor of Physics.*

HOWARD P. JONES, PH. D. (Heid.), *McLeod Professor of Modern Languages.*

MURRAY MACNEILL, M. A. (Harv.), *Professor of Mathematics.*

ERNEST ALBERT STONE, B. A. Sc., M. E. (McGill), M. Can. Soc. C. E., *Professor of Civil Engineering.*

————————, *Assistant Professor of Mining and Metallurgy.*

A. L. MCCALLUM, B. A. Sc. (McGill), *Lecturer on Assaying.*

R. H. BROWN, ESQ., *Lecturer on Coal Mining.*

*Registrar,* PROFESSOR MACNEILL.

---

## FACULTY OF LAW.

RICHARD CHAPMAN WELDON, D. C. L., (Mt. All.), Ph. D., (Yale), K. C., *George Munro Professor of Constitutional and International Law, and Lecturer on Shipping and Torts.*

BENJAMIN RUSSELL, M. A., D. C. L., (Mt. All.), J. S. C., *Professor of Contracts, Lecturer on Bills and Notes, Sales and Equity.*

HECTOR MCINNIS, LL. B. (Dal.), *Lecturer on Procedure.*

WILLIAM B. WALLACE, LL. B. (Dal.), *Lecturer on Crimes, Partnership, and Companies.*

WILLIAM F. O'CONNOR, B. C. L., LL. B. (Dal.), *Lecturer on Real Property and Wills.*

GEORGE PATTERSON, M. A., LL. B., (Dal.), J. C. C., *Lecturer on Evidence.*

*Dean of the Faculty:* DR. WELDON.

*Secretary of the Faculty:* DR. RUSSELL.

## FACULTY OF MEDICINE.

JOHN FORREST, D. D., D. C. L., *President (ex officio).*

GEORGE L. SINCLAIR, M. D., (Coll. Phys. Surg., N. Y.), M. B. (Univ. Hal.), *Examiner in Medicine.*

A. W. H. LINDSAY, B. A., M. D., C. M., (Dal.) M. B., C. M., (Edin.), *Examiner in Anatomy.*

ANDREW J. COWIE, M. D., (Univ. Penn.), L. R. C. P., (Lond.), *Examiner in Clinical Medicine.*

ALEXANDER P. REID, M. D., C. M. (McGill), L. R. C. S., (Edin.), L. C. P., and S., (Can.), *Examiner in Medical Jurisprudence and Hygiene.*

M. A. CURRY, B. A., (Vind.) M. D., (Univ. N. Y.), *Examiner in Obstetrics and Diseases of Women and Children.*

LOUIS M. SILVER, B. A., (Vind.) M. B., C. M. (Edin.), *Examiner in Physiology and Histology.*

F. U. ANDERSON, L. R C. P., (Edin.), M. R. C. S., (Eng.), *Examiner in Anatomy.*

E. MACKAY, B. A., (Dal.), Ph. D., (J. H. U.), *McLeod Professor of Chemistry.*

W. H. HATTIE, M. D., C. M., (McGill), *Examiner in Clinical Medicine.*

GEORGE M. CAMPBELL, B. A., (Dal.), M. D., (Bell. Hosp. Med. Coll.,) *Examiner in Pathology and Bacteriology.*

N. E. MCKAY, M. D., C. M., (Hal. Med. Coll), M. B., (Univ. Hal.), M. R. C. S., (Eng.), *Examiner in Surgery.*

H. H. MACKAY, M. D., C. M., (McGill), *Examiner in Physiology and Histology.*

MURDOCH CHISHOLM, M. D., C. M., (McGill), L. R. C. P., (Lond.), *Examiner in Clinical Surgery.*

NORMAN F. CUNNINGHAM, M. D., (Bell. Hosp. Med. Coll.), *Examiner in Medicine.*

JOHN W. MACKAY, M. D., (Bell. Hosp. Med. Coll.), *Examiner in Surgery.*

A. STANLEY MACKENZIE, B. A., (Dal.), Ph. D., (J. H. U.), F. R. S. C., *Munro Professor of Physics.*

E. V. HOGAN, M. D., C. M., (McGill), M. R. C. S., (Eng.), L.R.C.P., (Lond.), *Examiner in Medical Jurisprudence and Hygiene.*

J. G. MCDOUGALL, M. D., C. M., (McGill), *Examiner in Pathology and Bacteriology.*

DANIEL MCINTOSH, M. D., (Harv.), L. R. C. P., (Edin.), *Examiner in Obstetrics and Diseases of Women and Children.*

W. B. MOORE, M. D., C. M., (Hal. Med. Coll.), *Examiner in Materia Medica and Therapeutics.*

R. A. H. MCKEEN, M. D., (Bell. Hosp. Med. Coll.), *Examiner in Clinical Surgery.*

A. L. MCCALLUM, B. Sc., (McGill), *Examiner in Chemistry.*

A. F. BUCKLEY, M. D., C. M., (Dal.), Grad. Montr. Coll. Pharm., *Examiner in Materia Medica and Therapeutics.*

F. R. HALEY, M. A., Professor of Physics, Acadia University, *Examiner in Medical Physics.*

————————, *Lecturer on Biology.*

*Dean of the Faculty:* DR. SINCLAIR.

*Secretary of the Faculty:* DR. LINDSAY.

## FACULTY OF DENTISTRY.

HIBBERT WOODBURY, D. D. S., (Phil. Den. Coll.), *Examiner in Prosthetic Dentistry.*

A. C. HARDING, D. D. S., (Phil. Den. Coll.), *Examiner in Operative Dentistry.*

FRANK WOODBURY, D. D. S., (Penn. Coll. Den. Surg.), *Examiner in Orthodontia.*

J. M. MAGEE, D. D. S., (Penn. Coll. Den. Surg.), *Examiner in Orthodontia.*

E. A. RANDALL, D. D. S., (Am. Coll. Den. Surg.), *Examiner in Crown and Bridge Work, Ceramics and Phophylaxis.*

M. P. HARRINGTON, D. D. S. (Penn. Coll. Den. Surg.), *Examiner in Dental Comparative Anatomy, Histology, Pathology and Bacteriology.*

M. K. LANGILLE, D. D. S., (Phil. Den. Coll.), *Examiner in Prosthetic Dentistry.*

F. W. RYAN, D. D. S., (Univ. of Mich.), *Examiner in Operative Dentistry.*

A. W. COGSWELL, M. D., C. M., (Hfx. Med. Coll.), D. D. S. (Univ. of Penn.), *Examiner in Dental Materia Medica and Therapeutics.*

G. K. THOMSON, D. D. S. (Phil. Den. Coll.), *Examiner in Crown and Bridge, Ceramics and Prophylaxis.*

F. W. STEVENS, D. D. S. (Univ. of Penn.), *Examiner in Ethics, Jurisprudence and History of Dentistry.*

S. G. RITCHIE, B. A. (U. N. B.), D. M. D., (Tufts Den. Coll.), *Examiner in Dental Comparative Anatomy, Histology, Pathology and Bacteriology.*

H. W. BLACK, D. D. S., (Penn. Coll. Den. Surg.), *Examiner in Dental Materia Medica and Therapeutics.*

H. G. DUNBAR, D. D. S., (Penn. Coll. Den Surg.), *Examiner in General and Oral Surgery and Anaesthetics.*

F. V. WOODBURY, M. D. C. M., (Dal.), L. R. C. P. and S., (Edin.), L. F. P. and S., (Glas.), *Examiner in General and Oral Surgery and Anaesthetics.*

A. W. H. LINDSAY, B. A., M. D., C. M., (Dal.) M. B., C. M., (Edin.) *Examiner in Anatomy.*

LOUIS M. SILVER, B. A., (Vind.) M. B., C. M. (Edin.), *Examiner in Physiology and Histology.*

F. U. ANDERSON, L. R. C. P., (Edin.), M. R. C. S., (Eng.), *Examiner in Anatomy.*

E. MACKAY, B. A., (Dal.), Ph. D., (J. H. U.), *McLeod Professor of Chemistry.*

A. STANLEY MACKENZIE, B. A., (Dal.), Ph. D., (J. H. U.), F. R. S. C., *Munro Professor of Physics.*

H. H. MACKAY, M. D., C. M., (McGill), *Examiner in Physiology and Histology.*

A. L. MCCALLUM, B. Sc., (McGill), *Examiner in Chemistry.*

F. R. HALEY, M. A., *Examiner in Medical Physics.*

*Dean of the Faculty:* DR. FRANK WOODBURY.

*Secretary of the Faculty:* DR. F. W. RYAN.

# STANDING COMMITTEES

### STUDIES AND ATTENDANCE.

DEAN H. MURRAY, *Chairman.*
PROFESSOR MACKAY, *Secretary.*
PROFESSOR MACNEILL.
PROFESSOR STONE

### ARTS LIBRARY.

PROFESSOR MACMECHAN, *Chairman.*
PROFESSOR W. C. MURRAY.
PROFESSOR JONES.

### LABORATORIES.

PRESIDENT FORREST, *Chairman.*
PROFESSOR MACKAY, *Secretary.*
PROFESSOR WOODMAN.
PROFESSOR MACKENZIE.
PROFESSOR STONE.
PROFESSOR OF MINING.

### ATHLETICS.

PRESIDENT FORREST, *Chairman.*
DEAN WELDON.
DEAN MURRAY.
PROFESSOR WOODMAN.
PROFESSOR MACKENZIE.

# ADDENDA AND ERRATA.

## CAUTION MONEY.

Each male student on registration is required to deposit $2.00 as caution money to cover damage done to furniture, apparatus, etc. This amount, less deductions (if any), will be returned at the close of the session. There shall be no deduction from the Caution Fund for damages which have been charged to or assumed by individuals.

## ACADEMIC COSTUME.

Before "LL. D.," insert—

D. D. S.—Black stuff lined with scarlet silk and bordered with gold-coloured silk.

## B. A. DEGREE.

Read "Mineralogy" for "Geology," in Group C, on page 22.

## BAC. MUS. DEGREE.

For the course as arranged in years on pp. 36 and 37 read as follows:—

### First Year.

1. Harmony in not more than four parts. Analysis.
2. Strict Counterpoint in two parts.
3. History of Music, 1600 to 1750.
4. Acoustics.
5. English 1.

### Second Year.

1. Harmony in not more than five parts.
2. Strict Counterpoint in three and four parts.
3. Double Counterpoint in the octave, in two parts.
4. Canon and Imitation, in two parts.
5. Fugue as far as subject and answer.
6. History of Music from 1750 to the present time.
7. English 2.

### Third Year.

1. Strict and Free Counterpoint, in not more than five parts.
2. Canon and Imitation, in two, three, and four parts.
3. Double Counterpoint in the octave, tenth, twelfth, and fifteenth.
4. Strict and Free Fugue in not more than five points.
5. Analysis of Form.
6. Elements of Orchestration.
7. Analysis of certain prescribed scores.

## PRACTICE OF MUSIC.

Read *Mozart*, for *Smart*.

Add the following:—

### For Violin.

*Rhoda*, Caprices; *Gavinnes*, Studies; *Paganini*, Caprices; *Bach*, *Spohr*, *Bruch*, *Mendelssohn* and *Beethoven* Concertos; *Bach*, Sonatas for Violin alone; *Beethoven*, Sonatas for Piano and Violin.

The examinations will take place at such times as the Senate may hereafter appoint. Applications accompanied by the proper fees should be made to the Secretary of Senate at least one month before the time at which the candidates expect to be examined. The fee for the First Year examination is $5.00; for the Second Year, $10; for the Third Year is $15. For a Supplementary Examination the fee is $5.00 for each paper, provided the total fee for the supplementaries for any one year does not exceed the regular fee for that year.

# Dalhousie University.

## INTRODUCTION.

### Historical Sketch.

DALHOUSIE COLLEGE was founded in 1818 by the Right Honourable George Ramsay, Ninth Earl of Dalhousie, "for the education of youth in the higher branches of science and literature."

The original endowment was derived from funds collected at the port of Castine, Maine, during its occupation in 1814 by Sir John Sherbrooke, then Lieutenant-Governor of Nova Scotia. In a letter to Lord Bathurst, dated December 14th, 1817, Lord Dalhousie, with the unanimous consent of the Council, proposed that £9,750 of these funds be devoted to the "founding of a College or Academy on the same plan and principle as that in Edinburgh," "open to all occupations and sects of religion, restricted to such branches only as are applicable to our present state, and having the power to expand with the growth and improvement of our society," and that this College be established in Halifax, "the seat of the legislature, of the courts of justice, of the military and the mercantile society." On the 6th of February, 1818, Lord Bathurst wrote expressing the Prince Regent's "entire approval of the application of the funds in question in the foundation of a Seminary in Halifax for the higher classes of learning." The building was begun in 1819, and on the 22nd of May, in the year of 1820, the corner stone was laid by the Earl of Dalhousie. On the 13th of January, 1821, an "Act to incorporate the Governors of Dalhousie College at Halifax" became law. The original Board consisted of the Governor-General of British North America, the Lieutenant-Governor of Nova Scotia, the Bishop, the Chief Justice, the President of the Council, the Treasurer of the Province, the Speaker of the House of Assembly, and the President of the College.

After unsuccessful efforts in 1822-4 and 1829-36 on the part of both the British Government and the Board of Governors to effect a union with King's College, at

that time the only other existing in the Province, Dalhousie College went into operation in 1838, with the Rev. Thomas McCulloch, D. D., as President.

In 1841 an Act was passed conferring university powers upon the College, and vesting the appointment of the Governors in the Governor and Council. Two years later President McCulloch died, and in 1845 the College was closed, the Governors considering it "advisable to allow the funds of the institution to accumulate." From 1849 to 1859 the College funds were employed to support a High School. Toward the end of this period, in 1856, the Arts department of Gorham College, Liverpool, supported by the Congregationalists, was transferred to Dalhousie, "with a view to the furtherance of the establishment of a Provincial University"; and for a short time an attempt was made to conduct the institution as a University under the Act of 1841.

The history of Dalhousie College as an institution realizing the purpose of its Founder may be dated from 1863. In that year the College was reorganized under an Act which empowered the Board of Governors to grant to any body of Christians, or any individual, or number of individuals, the privilege of nominating a representative to the Board, and a Professor, for every chair in the College supported by them to the extent of twelve hundred dollars a year. In consequence of this provision, the Presbyterian Church of Nova Scotia closed its academies at Truro and Halifax, and undertook the support of two chairs; and the Church of Scotland in Nova Scotia, having no institution of its own, endowed one chair—the Chair of Mathematics. Thus strengthened, the College opened in the Autumn of 1863 with a staff of six professors the Rev. James Ross, D. D., being Principal. At the death of the incumbents of the two chairs supported by it, the Presbyterian Church withdrew its support.

In 1879 Mr. George Munro, of New York, endowed the Chair of Physics, and in rapid succession Chairs of History and Political Economy, English Literature, Law, and Metaphysics. He also supported tutorships in Classics and Mathematics, and for ten years provided liberal exhibitions and bursaries. His munificent gifts were at that time unparalleled in Canada.

In 1882 Mr. Alexander McLeod, of Halifax, left the residue of his estate to endow the three chairs now known as the McLeod Chairs of Classics, of Modern Languages, and of Chemistry.

The purchase of the old College building by the City and the generous gift of $20,000 by Sir William Young, for over forty years Chairman of the Board of Governors, led to the erection of a new building, the corner stone of which was laid by Sir William on the 27th of April, 1887. The gifts of Sir William Young to the College subsequent to its reorganization exceeded $68,000.

In 1890, Mr. John P. Mott, of Halifax, left a bequest of $10,000 to the College.

In 1902 the School of Mines was established, and in the same year the Alumni began a movement to erect a Library in memory of the late Professor Macdonald. For these two purposes subscriptions to the amount of about $80,000 were obtained.

The Faculty of Medicine was organized in 1868; merged into the Halifax Medical College in 1875; and re-organized in 1885.

The Faculty of Science was organized in 1877, and re-organized in 1891. In 1906 the Faculty was divided, the department of Pure Science uniting with the Faculty of Arts to form the Faculty of Arts and Science, and the department of Applied Science constituting the Faculty of Engineering.

The Faculty of Law was established in 1883.

## Constitution.

THE BOARD OF GOVERNORS is the supreme governing body of the University. Appointments to it are made by the Governor-in-Council on the nomination of the Board, or on the nomination, with the approval of the Board, of any body of Christians, or of any individual, or number of individuals, supporting a chair in the College. Any such body or individual is entitled to one representative Governor for each chair so supported. The Governors have the management of the funds and property of the College; the power of appointing the President, Professors, and other officials, and of determining their duties and salaries; and the general oversight of the work of the University.

THE SENATE consists of the President and Professors. To this body are intrusted, by statute, the internal regulations of the University, subject to the approval of the Governors. All degrees are conferred by the Senate.

THE FACULTIES are committees to which are intrusted by the Senate, subject to its approval, the supervision of the teaching of the University, the preparation of regulations governing the courses of study, and the recommendation of suitable candidates for prizes, scholarships, diplomas, and degrees. The University contains a Faculty of Arts and Science, and Faculties of Medicine, Law, and Engineering.

## Degrees.

The Senate confers the degrees of Bachelor and Master of Arts, Bachelor and Master of Science, Bachelor of Engineering, Bachelor of Music, Bachelor of Laws, and Doctor of Medicine and Master of Surgery. A candidate entitled to a degree must have conformed to the regulations of the Faculty in which he has been studying, and must be recommended by that Faculty for the degree.

The degree of Doctor of Laws may be conferred *honoris causa tantum* in recognition of eminent literary, scientific, professional, or public services.

The various Faculties of the University provide the instruction required in the courses leading to the above degrees, except in Music and in Medicine. In Music instruction is provided in the literary and scientific subjects required, and the University recognizes as qualifying for a degree the instruction in professional subjects given by the Halifax Conservatory of Music and other approved institutions. In Medicine, the University provides instruction in pure science, and recognizes the teaching in professional subjects of the Halifax Medical College and other approved Schools of Medicine.

AFFILIATED COURSES.—By a proper selection of elective subjects in his course, a candidate may reduce by one year the time required for the degree of Bachelor of Arts, and a professional degree in Law, Medicine, or Engineering. Similarly a Bachelor of Science may reduce by two years the time required for the combined Science degree and a degree in Medicine or Engineering.

PRIVILEGES.—The usual privileges of exemption from the Preliminary Examination granted to graduates of recognized universities by the learned professions in Canada and Great Britain are extended to this University.

The University of Oxford exempts from Responsions an undergraduate in Arts of this University who has

passed in the subjects (including Greek) of the second or a higher year. A Bachelor of Arts, with Honours, is further exempted from four terms of residence. The Trustees of the Rhodes Scholarships exempt from the qualifying examination candidates who are exempted from Responsions by the University of Oxford.

Of the seven courses required by the University of Edinburgh for the degree of B. Sc. in Pure Science three may be taken in this University; and of the seven courses required for the B. Sc. in Engineering, two may be taken in this University, subject to certain conditions.

The University of London exempts Bachelors of Laws of this University from the Preliminary Examination leading to the LL. B. of that University. Graduates in law of this University are admitted to the Bar of Nova Scotia without further examination, provided they have passed in Procedure.

The degree in Medicine from this University is recognized as entitling to the privileges usually granted to graduates in Medicine of Canadian Universities. Graduates of this University in Medicine and Surgery who hold the License of the Provincial Medical Board may, on application, be placed on the Colonial List of the British Medical Register.

## Equipment.

### LIBRARIES.

The University possesses a University Library, open to all registered students, and a Law Library for the exclusive use of the students and instructors in the Faculty of Law. The University Library contains about 17,000 volumes and pamphlets, selected primarily to meet the needs of students in the Faculty of Arts and Science and the Faculty of Engineering. The Law Library contains more than 7,500 volumes, including all the law reports which a student will find it necessary to consult. Besides the libraries in the University, students may use, subject to certain conditions, the following libraries:—The Science Library, the Library of the Mining Society of Nova Scotia, the Legislative Library, the Citizens' Free Library, and the Library of the Presbyterian Theological College, The Cogswell Medical Library in the Halifax Medical College is open to the students of Medicine.

The University Library is in charge of a library committee appointed by the Senate, and a librarian. The Law

Library is in charge of the Dean of the Law Faculty, assisted by a librarian.

## THE MUSEUM.

The Museum consists chiefly of the THOMAS MCCULLOCH, the PATTERSON and the HONEYMAN COLLECTIONS.

THE THOMAS MCCULLOCH COLLECTION, presented by the late Rev. William McCulloch, D. D., of Truro, contains a large and valuable collection of birds, especially native species of the Maritime Provinces, besides many mineral, rock and fossil specimens, shells of recent mollusca, Indian implements, etc. The fossil specimens include a collection of European cretaceous fossils and of carboniferous fossils, chiefly Nova Scotian. The collection of birds is supplemented by the valuable collection made by Col. T. J. Egan, of Halifax, containing thirty cases of native birds.

THE PATTERSON COLLECTION of Indian antiquities was made by the late Rev. George Patterson, D. D. LL. D., F. R. S. C., and presented by him to the University. It contains 280 specimens, catalogued and conveniently arranged for reference, including about 250 specimens relating to the aborigines of Nova Scotia.

THE HONEYMAN COLLECTION consists of the extensive geological collection made by the Rev. David Honeyman, D. C. L., F. S. A., for some years Professor of Geology in Dalhousie College, and was presented by Dr. Honeyman's relatives.

The Honeyman collection and the portion of the McCulloch collection illustrating Geology and Mineralogy, are placed in the Geological Laboratory.

The Zoological section of the Museum was catalogued by the late Dr. Andrew Halliday, Lecturer in Zoology from 1899 to 1903.

The collections of the Provincial Museum, illustrating the Geology, Mineralogy and Zoology of the Province, may be conveniently used by students.

## LABORATORIES.

The University is equipped with laboratories in the departments of Physics, Chemistry, Biology, Geology and Mineralogy, Assaying and Mining, and Civil Engineering. Facilities for research are provided for a limited number of students in Physics, Chemistry, Geology and Metallurgy. Reports of the researches carried out by students appear

from time to time in the Transactions of the Nova Scotian Institute of Science and other scientific publications.

THE PHYSICAL LABORATORY comprises a general laboratory affording accommodation for 16 students working simultaneously, a room for electrical work, and a number of smaller adjoining rooms for research work and storage.

THE CHEMICAL LABORATORY includes a general laboratory fitted with lockers for 85 students, and a quantitative laboratory accommodating 16 students, with additional rooms for weighing and for storing apparatus and reagents.

THE GEOLOGICAL LABORATORY occupies a large general laboratory and two small adjacent rooms, one of which is fitted for photographic work. The laboratory contains good collections, constantly being added to, of typical rock and mineral specimens, as well as collections of crystals, crystal models, geological maps, etc., for class instruction.

THE BIOLOGICAL LABORATORY accommodates about 25 students doing simultaneous microscopic work. Microscopes, reagents and material are provided for students.

THE ASSAYING LABORATORY contains a coke muffle furnace and a gasolene muffle and three pot furnaces with their accessories, and separate working desks for 12 students.

THE MINING LABORATORY occupies large, well-lighted basement rooms. Its equipment includes the following:— Blake breaker, Gates crusher, Gates fine grinder, pair of 9″x12″ crushing rolls, Collom jig. Rand compressor, reverberatory roasting furnace, gold clean-up barrel, Wilfley concentrating table, Bartlett concentrating table, settling tanks, and a five-stamp mill of the most modern pattern, especially designed for this laboratory. Power is furnished by a 10-H. P. three-phase motor. The stamp mill is run by a separate 5-H. P. induction motor.

THE ENGINEERING TESTING LABORATORY is equipped with a Fairbanks cement testing machine of 2,000 lbs. capacity and all necessary apparatus for making complete tests of the hydraulic cements used in engineering work. Tests of the cements used by the Department of Public Works of Nova Scotia are made in this laboratory.

# ADMISSION.

## Admission to Classes.

Persons of either sex of good moral character are admitted as students into certain classes of the University without formal examination, provided they are deemed qualified to profit by the work of the class or classes selected. Except in special circumstances no student under the age of sixteen shall be admitted into the University. Persons seeking to enter the University as General Students, if under the age of nineteen, must present evidence of having taken a satisfactory course of school instruction.

Students who are candidates for a Bachelor's degree are known as Undergraduates; candidates for a Master's degree, as Graduate students. All others are classed as General students.

To become a candidate for a degree a student must satisfy the requirements for Matriculation, and he is recommended to do this before entering upon any course of study leading to a degree.

## Matriculation.

A student in order to become a candidate for a degree must satisfy the requirements for Matriculation, either by passing an examination or by presenting a certificate which will be accepted as an equivalent. There are two standards of Matriculation, known respectively as the Junior and the Senior Matriculation. Candidates who satisfy the requirements of the Junior Matriculation may enter the first year of a course leading to a degree in any Faculty of the University. Candidates who pass the Senior Matriculation may enter the second year of an Arts or Science course, and may be exempted from certain classes in the courses in Engineering and in Medicine.

In general, the Matriculation is to be passed by a student before he enters upon a course of study leading to a degree. When a general student becomes an undergraduate, classes which he has attended and passed previous to Matriculation may, with certain restrictions, be accepted as qualifying for a degree. The Faculty of Arts and Science requires that the Matriculation be completed at least two academic years before a candidate is admitted to a baccalaureate degree. The Faculty of Engineering will only admit candidates who have passed in at least

three of the subjects required for Matriculation, and requires that the Matriculation shall have been completed before a candidate enters upon a second year of study. The Faculty of Medicine will not recognize class attendance previous to Matriculation in any professional subject, unless the candidate has passed in all, save one, of the subjects of the Matriculation or Preliminary Examination; but candidates who have attended and passed approved courses in Chemistry, Biology or Physics prior to Matriculation will be exempted from further attendance and examination in these subjects, provided they have attained a sufficiently high standard.

## JUNIOR MATRICULATION.

Candidates for a degree in Arts, Science, *Engineering, Law or Medicine are required to pass in each of the following subjects.

1 and 2. Two of the following languages: Latin, Greek, French or German.

3. English.

4. History and Geography.

5. Arithmetic and Algebra.

6. Geometry.

The choice of foreign languages is subject to the following restrictions: candidates for a degree in Arts must select *either* Latin *or* Greek; candidates in Law or Medicine must select Latin; and candidates in Science or Engineering *either* French *or* German.

As stated above, candidates may satisfy Matriculation requirements either by passing an examination set by the University, or by presenting certificates recognized as equivalent.

JUNIOR MATRICULATION BY EXAMINATION.—The Junior Matriculation Examination will be held at the College on September 9th to 12th, 1908. The details of subjects of examination are as follows:

LATIN.—The paper will contain (1) passages for translation from prescribed books with questions arising out of those books; (2) easy passages for translation from books not prescribed; (3) questions on Grammar, accidence and elementary syntax; (4) translation of easy sentences from English into Latin.

The books prescribed for the next examination are:—

For 1908.—Cæsar: *Gallic War*, Book I, and Vergil: *Aeneid*, Book III.

*Candidates in Engineering entering in 1908 may take *either* French *or* German, only *one* foreign language being required.

GREEK.—The paper will contain (1) passages for translation from a prescribed book with questions arising out of that book; (2) easy passages for translation from books not prescribed; (3) questions on Grammar, accidence and elementary syntax; (4) translation of easy sentences from English into Greek.

The book prescribed for the next examination is:—

For 1908.—Xenophon: *Anabasis*, Book II.

FRENCH.—*Athalie* or Enault: *Le Chien du Capitaine;* Berthon: *Specimens of Modern French Prose*, pp. 1-89. Grammar questions limited to accidence and easy rules of syntax, and based on the passages selected for translation.

GERMAN.—Buchheim: *Modern German Reader Part I.* Grammar questions limited to accidence and easy rules of syntax, and based on the passages selected for translation.

ENGLISH.—*English:* Grammar, Analysis, Parsing. *Composition:* An essay on one of several set subjects to be drawn from: —Macaulay, *Warren Hastings*, Shakspere, *Merchant of Venice*, Longfellow, *Evangeline;* Scott, *The Lady of the Lake.*

Questions on the interpretation of a passage not specified to test general intelligence.

*Note.*—The essential part of this examination is the essay. Legible writing, correct spelling and punctuation, will be considered indispensable. Skill shown in sentence and paragraph construction will be awarded high marks. Not more than one of the works named need be read. It should be read primarily for the story, and need not be studied minutely, as a choice is allowed among at least four themes drawn from the works named.

HISTORY AND GEOGRAPHY.—Outlines of English and Canadian History and General Geography.

ARITHMETIC AND ALGEBRA.—Arithmetic. *Algebra:* As in Hall & Knight's *Elementary Algebra*, or Todhunter and Loney's *Algebra for Beginners*, or Wentworth's *Algebra.*

GEOMETRY.—Euclid, Books I, II, III, IV. Definitions of Book V, Book VI, first 19 propositions, or their equivalents.

Candidates who pass in three or more subjects, but fail to pass the examination as a whole, will be exempted from such subjects, should they appear as candidates on any subsequent occasion.

Candidates reaching a certain standard will be declared to have passed with Distinction, and will be eligible for the Mackenzie Bursary.

JUNIOR MATRICULATION BY CERTIFICATE.—The Faculty of Arts and Science, and the Faculties of Law and Engineering, will exempt holders of the following diplomas, licenses or certificates from the above examination in those subjects of the examination which are included in such diploma, license or certificate, and in which a sufficiently high standard has been reached, provided this standard has been reached in a majority of the subjects required for Matriculation:—

*a)* Certificates of Matriculation into recognized Universities.

**b)* High School Certificates of Grades XII or XI of Nova Scotia.

*c)* Honour Diplomas, or Certificates entitling to a First Class License, as issued by Prince of Wales College, or a First Class License, issued by the Education Office of Prince Edward Island.

*d)* Grammar School, or Superior (except in Latin), or First Class Licenses of New Brunswick.

*e)* Equivalent Licenses or Certificates issued by Education Departments of other Provinces.

Persons may be admitted as undergraduates of the first year, without examination, on presentation of certificates from the Principals of High Schools or Academies, approved for this purpose by the Senate, stating that they have satisfactorily completed the work prescribed for the Junior Matriculation Examination, and passed satisfactory examinations therein.

The Faculty of Law, in addition to the foregoing certificates, etc., will accept as the equivalent of the Junior Matriculation Examination, a certificate stating that the candidate has passed the Preliminary Law Examination in any of the Provinces of Canada, or in Newfoundland, or in any of the British West India Islands.

The Faculty of Medicine will accept only those certificates which are recognized by the Provincial Medical Board as equivalent to their Preliminary Examination.†

## SENIOR MATRICULATION.

Candidates are required to pass in each of the following subjects:—

1 and 2. Two of the following: Latin, Greek, French, German.

3. English.

4. History and Geography.

5. Arithmetic and Algebra.

6. Geometry.

7. Trigonometry.

8. *Either* Chemistry *or* Botany.

---

*The standard required in the certificates issued by the Education Department of Nova Scotia in 1908 and subsequent years is a mark of at least 50 per cent. in each of the subjects required for Matriculation. For the present the percentage required for certificates issued prior to 1908 is 40. When any one of the subjects specified above as required for Matriculation is divided in the certificate examination into two or more parts, the average mark for such parts is taken as the mark obtained for the subject. Marks obtained in the subjects other than those required for Matriculation are not considered.

†All information with reference to the requirements for this examination, exemptions granted, etc., may be obtained on application to the Registrar of the Board, Dr. A. W. H. Lindsay, 241 Pleasant Street, Halifax.

Candidates must select the two foreign languages which they intend to take in the second year of the course they enter.

SENIOR MATRICULATION BY EXAMINATION.—The Senior Matriculation Examination will be held at the College on September 9th to 14th, 1908.

The details of the subjects of the Examination are as follows:—

LATIN.—For 1908:—Cicero: *In Catilinam;* Vergil: *Aeneid V-VI;* Tacitus: *Agricola* and *Germania.*

GREEK.—For 1908:—Xenophon: *Hellenica, I-II;* Homer: *Iliad I-II,* (omitting the catalogue of ships).

The papers in Latin and Greek will contain passages for translation from the books prescribed, together with grammatical and other questions arising out of those books, and short and easy passages for translation from books not prescribed. General questions in Latin and Greek Grammar will also be set, and some English sentences to be turned into Latin and Greek.

FRENCH.—Mérimée, *Colomba* (Hachette & Cie., London); Molière, *L'Avare* (D. C. Heath & Co.); de Vigny, *Cinq-Mars,* (Macmillan & Co.). Grammar and prose composition based upon the rules and vocabularies contained in Fraser and Squair's *Abridged French Grammar* (D. C. Heath & Co.).

GERMAN.—Schiller, *Wilhelm Tell;* Keller, *Kleider machen Leute* (D. C. Heath & Co.). *German Lyrics and Ballads* (Hatfield, D. C. Heath & Co.). Grammar and Composition.

ENGLISH.—*Language:* Grammar, Analysis, Parsing. *Composition:* An essay on one of several set subjects; to be drawn from; Macaulay: *Warren Hastings;* Shakspere: *Merchant of Venice;* Longfellow: *Evangeline;* Scott: *The Lady of the Lake.* (See note to English in Junior Matriculation).

*Literature.*—Eighteenth Century: Addison, *Papers Contributed to the Spectator.* Johnson, *Life of Pope* (Macaulay, *Samuel Johnson*). Dryden, *MacFlecnoe, St. Cecilia's Day, Alexander's Feast.* Pope, *Rape of Lock.* Gray, *Elegy in a Country Churchyard.* Goldsmith, *Traveller, Deserted Village,* Burns, *Two Dogs, Cotter's Saturday Night.*

Instead of the works prescribed here in Latin, Greek, French, German, and English, candidates for matriculation may offer equivalents, provided they have been previously approved by the President, who should receive notice not later than August 1st.

HISTORY AND GEOGRAPY.—Outlines of English and Canadian History and General Geography.

ARITHMETIC AND ALGEBRA.—As specified for the Junior Matriculation Examination and in Mathematics 1: Indices. Irrational Quantities. Quantities involving $\sqrt{-1}$. Theory of Quadratic Equations. Proportion. Progressions. Permutations

and Combinations. Binomial Theorem. Properties of Logarithms. Interest and Annuities. Undetermined Coefficients. Partial Fractions. Graphical representation of functions, and plotting of loci of equations. Exponential and Logarithmic Series. Probability.

GEOMETRY.—As specified for the Junior Matriculation Examination and in Mathematics 1: Euclid, Books I-IV, definitions of Book V, Books VI, XI. Propositions on Harmonic Ranges and Pencils, Poles and Polars, and Transversals. Geometry and Mensuration of the Prism, Cylinder, Cone, and Sphere. Elementary propositions in the geometrical treatment of the Parabola, Ellipse and Hyperbola.

TRIGONOMETRY.—As in Mathematics 1: The solution of plane triangles. Measurements of heights and distances. Elementary angular analysis.

CHEMISTRY.—Elements of General Chemistry. Candidates will be expected to have a knowledge of the following: Units of mass, volume, pressure, temperature, and heat; gas laws, and the correction of volumes of gases for pressure and temperature. Melting and boiling-points; solution and crystallization. Combustion and evidence leading to its explanation; oxygen, hydrogen, water; acids, bases, salts; chemical equivalents; conservation of mass, definite, reciprocal and multiple proportions, combining (gas) volumes; atomic hypothesis; Avagadro's law; methods of determining molecular and atomic weights; calculation and meaning of formulæ; equations. Chlorine, bromine, iodine, fluorine and their compounds. Sulphur, hydrogen sulphide, oxides and oxygen acids of sulphur. Nitrogen, ammonia, nitric and nitrous acids and the oxides of nitrogen; the atmosphere, ozone, hydrogen peroxide, argon, helium. Carbon, oxides of carbon; methane, acetylene, benzene; acetic acid, alcohol, glycerine, sugar; hydrocyanic acid; carbon disulphide; coal gas; structure of flame. Valence; the periodic law; constitution of acids and bases; acid and basic salts. The occurrence, modes of preparation, properties and uses of the following elements and their *chief* compounds:—phosphorus, arsenic, antimony, bismuth; silicon, tin, lead; boron, aluminium; calcium, barium, strontium, magnesium, zinc, cadmium, mercury; sodium, potassium, copper, silver, gold; iron, nickel, cobalt; manganese; chromium. Atomic heat, Dulong and Petit's law; isomorphism, Mitscherlich's law; thermochemistry, law of Hess; dissociation; chemical equilibrium; dissociation in solution, ions; reactions in solution; electrolysis.

In the examination special importance will be attached to an acquaintance with the experimental evidence upon which the more important facts and the fundamental laws of the science are based, including, for example, the evidence for the composition of the more important compounds, as water, hydrochloric, nitric and sulphuric acids, ammonia, and the oxides of carbon, nitrogen and sulphur.

Candidates in Science, Engineering or Medicine, are required to satisfy the examiner that they have done an amount of laboratory work equivalent to that prescribed in Chemistry 1A. (See Courses of Instruction).

BOTANY.—The elements of General Botany. Bessey's *Essentials of Botany* and Spotton's *High School Botany* may be taken to

indicate in a general way the extent of knowledge required and the method to be pursued. The examination will be designed to test the extent to which the candidate's knowledge of the subject is founded upon practical study.

Candidates who have previously passed in one or more of the above subjects, either at the Senior Matriculation examination or at the Junior Matriculation and First Year examinations, shall be exempt from further examination therein.

Candidates in Engineering who pass the above examination with a sufficiently high standing, are exempt from the Modern Language, English, Mathematics and Chemistry of the first year in the Engineering courses.

All candidates for a degree who do not take Chemistry in this examination are required to take Chemistry 1, or 1A, as one of the classes of their course.

SENIOR MATRICULATION BY CERTIFICATE.—Candidates who hold the following licenses, diplomas or certificates shall be exempted from the above examination in subjects, except Chemistry, which were included in the examinations by which such licenses, diplomas or certificates were obtained, and in which a sufficiently high standard was reached:—

*a) High School Certificates of Grade XII of Nova Scotia.

b) Honour Diplomas, as issued by the Prince of Wales College, P. E. I.

c) Grammar School Licenses of New Brunswick.

Students who enter the second year by certificate, and are found to be deficient in English Composition, may be required to take English 1 as an additional class, without fee.

## Admission to Advanced Standing.

Students of other Universities may, on producing satisfactory certificates, be admitted *ad eundem statum* in this University, if they are found qualified to enter the classes proper to their years. But if their previous courses of study have not corresponded to the courses on which they propose to enter in this College, they may be required to take additional classes. In no case, however, shall a candidate admitted to advanced standing be admitted to a degree in course in this University until he has attended and passed in at least five classes or their equivalents.

Persons seeking admission to advanced standing must, in making application, submit certificates of good char-

*See foot-note, page 11. The mark required in Botany is 50 per cent.

acter and standing with duly certified statements of their Matriculation, and of the classes attended and passed with the grades attained by them; also a calendar or calendars of the institution from which they have come of such date as to show the courses which they have followed.

A graduate of a University approved by the Senate, who has received his degree in course, may be admitted *ad eundem gradum* in this University on producing satisfactory evidence of good character and academic standing and on payment of the required fee, provided the applicant is pursuing a course of study or research in this University, or is associated with the academic work of the University, or has similar qualifications.

A graduate of another University who is a candidate for a higher degree in this University must be admitted *ad eundem gradum* before proceeding to the higher degree.

---

# UNIVERSITY REGULATIONS.

## Academic Year.

The Academic Year in all Faculties, except Engineering, consists of one session. The session of 1908-1909 in Medicine will begin on August 27th; in Law, on September 1st; in Arts and Science, on September 8th. In Law it will end on February 27, 1909; in Arts and Science, and Medicine, on April 29th, 1909.

In the Faculty of Engineering, the Academic Year consists of a Winter Session of the same duration as the Session in Arts and Science, and a Summer Session. The Summer Session is devoted to field work, and extends over six weeks for Mining, and three weeks in Civil Engineering.

## Registration.

All students of the University are required to enter their names in the Register annually, and pay the required fees before entering any class or taking any examination. After registration and payment of fees a student is given a registration certificate, on presentation of which to the professors and lecturers whose classes he proposes to attend, his name is entered on the class register. Students who register after September 22nd must pay an additional fee of one dollar. Theological students giving a satisfactory reason are exempt.

## Residence.

All students are required to report their place of residence to the President on or before the day appointed in the University Almanac (October 15th).

All students not residing with relatives or friends are required to reside in approved lodging houses.

Persons who wish to take students as boarders must furnish the President with satisfactory references. A register is kept by the President, containing the names of those persons who have met this requirement; and, for the convenience of students, a list of the names and addresses of such persons will be posted on the notice-board in the College hall at the beginning of the session.

## Church Attendance.

All students not residing with parents or guardians are required to report to the President on or before the day appointed in the University Almanac (October 15) the churches which they intend to make their places of worship during the session. Intimation will be made to the various clergymen of the city of the names and addresses of the students who have chosen their respective places of worship.

## Discipline.

The Senate may use all means deemed necessary for maintaining discipline. It is the duty of the Dean of the College to see that order is maintained within the buildings and on the premises of the College. Every professor or officer of the University is required to report to the Dean cases of improper conduct that may come under his notice. Students conducting themselves in an unbecoming manner on or beyond the premises of the College, during the session, may be fined, suspended, or expelled from the University.

Irregularity of attendance, except for approved reasons, or neglect of studies, shall be regarded as sufficient cause for dismissal from one or more classes, or, in extreme cases, from the University.

## University Library.

The library is open during the session on every weekday, except Saturday, from 10 A. M. till 1 P. M., and 3 to 5 P. M.

Books other than those on the lists of reserved books may be taken out by instructors or students and kept for two weeks. They should then be returned to the library. Books on the reserved lists may be taken out immediately before the closing of the library on any day, and must be returned when it opens on the following day.

No more than two books may be borrowed at one time by a student not in an Honour course, nor more than four by a student taking Honours.

Students are allowed the privilege of borrowing books from the library for the period between the Spring and Autumn convocations. Students using this privilege are required to make a deposit of two dollars with the librarian. This deposit is returned when the books are replaced in the library.

## Conduct of Examinations.

Candidates are forbidden to bring any book or manuscript into the examination hall except by direction of the examiner, or to give or receive assistance, or to hold any communication with one another at the examinations. If a student violate this rule he shall be excluded from the examination, and such other penalty shall be imposed as the Senate may determine.

No candidate shall be permitted to enter the examination hall after the expiry of one-half hour, or leave it before the expiry of one-half hour, from the commencement of the examination. Any candidate leaving the examination room after the distribution of the examination papers in any subject, shall not be permitted to return during the course of that examination.

All assessors are expected to attend strictly to the supervision of the examinations while they are in the hall.

## Academic Costume.

Undergraduates and general students attending more than one class are entitled to wear gowns at lectures and all meetings of the University. The forms prescribed are the Oxford undergraduate gowns of black stuff with sleeves, and the black trencher with tassel.

Graduates of the University shall be entitled to wear gowns of black stuff, and hoods. The distinctive part of the costume is the hood. The following are the kinds of hoods appointed for the various degrees:—

B. A.—Black stuff lined with white silk and bordered with white fur.

M. A.—Black stuff lined with crimson silk.
B. Sc.—Black stuff lined with white silk and bordered with scarlet silk.
M. Sc.—Black stuff lined with scarlet silk.
B. E.—Black stuff lined with white silk and bordered with dark green silk.
B. Mus.—Black stuff lined with white silk and bordered with lavender silk.
Ll. B.—Black stuff lined with white silk and bordered with gold coloured silk.
M. D.—Black stuff lined with scarlet silk and bordered with white silk.
Ll. D.—Black silk lined with purple silk.

Doctors of Law shall be entitled to wear gowns of black silk.

## Conferring of Degrees.

Successful candidates for degrees are required to appear at Convocation in the proper academic costume to have the degrees conferred upon them.

By special permission of the Senate degrees may be conferred *in absentia*.

# Faculty of Arts and Science.

THE PRESIDENT.

A. MACMECHAN, Ph. D.
W. C. MURRAY, M. A., LL D.
H. MURRAY, B. A., LL. D.
E. MACKAY, Ph. D.
J. E. WOODMAN, A. M., S. D.
A. S. MACKENZIE, Ph. D.
H. P. JONES, Ph. D.
M. MACNEIL, M. A.
S. A. MORTON, M. A.
ALEXANDER MCKAY, ESQ.
J. W. LOGAN, B. A.
R. MAGILL, M. A., Ph. D.
W. K. BUTLER, M. A.
JAMES CARRUTHERS.
A. MCLEAN SINCLAIR.

*Secretary of the Faculty:* PROFESSOR H. P. JONES.

Correspondence should be addressed:

*The Secretary, Faculty of Arts and Science,*
*Dalhousie College, Halifax, N. S.*

## COURSES FOR DEGREES.

Courses are prescribed leading to the degrees of Bachelor of Arts (B. A.), Master of Arts (M. A.), Bachelor of Science (B. Sc.), Master of Science (M. Sc), and Bachelor of Music (B. Mus.).

The course for the degree of Bachelor of Arts extends over four years. Candidates for the degree may either follow the ordinary course or, if they have obtained a sufficiently high standing in the work of the first two years, may then enter upon an Honour course. Bachelors of Arts of at least one year's standing, on submitting a satisfactory thesis, or completing an approved course of study, may be admitted to the degree of Master of Arts.

The course for the degree of Bachelor of Science also extends over four years. Honour courses in Science are open to candidates who have completed the work of the first two years with sufficient credit. Bachelors of Science of at least one year's standing who have completed after graduating an approved course of scientific study, or an approved thesis embodying a scientific research, may be admitted to the degree of Master of Science.

The course of study for the degree of Bachelor of Music extends over three years.

Students who have passed the Senior Matriculation may complete the course for the degree of Bachelor of Arts or Bachelor of Science in three instead of four years.

## Ordinary Course for Bachelor of Arts.

The ordinary course of study prescribed for the degree of Bachelor of Arts consists of the following classes:—

(i) Three classes in either Latin or Greek.

(ii) Two classes in one of the following languages: the classical language not selected as subject (i), or French, or German.

(iii) Two classes in English, including Elocution.

(iv) One class in each of the following: History, Philosophy, Mathematics, Physics *or* Geology, Chemistry.

(v) Eight* single classes, or equivalents, so selected from the subjects in the following groups that not less than one shall be taken from each of the groups A. and B., and not more than five from group A. or C., or six from group B.:—

A.—Latin, Greek, New Testament Greek, Hebrew, French, German, English, Keltic.

B.—History, Constitutional History , Constitutional Law, Political Economy, Philosophy, Education.

C.—Mathematics, Astronomy, Physics, Chemistry, Geology, Mineralogy, Biology.

The details of subjects studied in the above classes will be found under Courses of Instruction.

### Choice of Elective Classes.

In choosing their elective classes undergraduates, and general students who wish to appear at the Christmas and Spring examinations, should select classes whose examination hours do not conflict.

The first class in Latin, Greek, French or German, is not recognized as part of a course for a degree unless the second class is subsequently taken.

An advanced or Honour class may be taken as an elective by students who are not in an Honour course, if approved by the Faculty.

Lists of the elective classes chosen by students must be submitted for approval not later than Friday, September 25th, 1908.

*A "single" class is one in which two or three lectures a week are given, a "double" class one in which the number of lectures is four or five a week. One double class is regarded as equivalent to two single classes, provided a double fee is paid.

### Affiliated Courses.

An undergraduate looking forward to the study of Divinity, Law, or Medicine, may offer one of the following groups in place of three of the electives required from groups A., B. and C. above:—

For Divinity: D.—Hebrew, New Testament Greek, one being a double class.

For Law: E.—Constitutional History, Constitutional Law, Contracts.

For Medicine: F.—Biology, Histology, Physiology.

An undergraduate who selects one of these groups must then select from groups A., B. and C. above the remaining five electives required, so that of the eight electives chosen at least one shall be taken from each of the groups A. and B., and not more than five from either A. or C., or six from B.

Undergraduates who have passed in the classes of group E. may complete a subsequent Law course in this University in two years. Students registered as undergraduates in Medicine, whose course in Arts has included Chemistry 1 and Physics 1 in addition to group F., and who have passed in Junior Anatomy and Practical Anatomy as additional subjects, may afterwards take a degree in Medicine in this University in three years; and if their Arts course has also included Chemistry 3, and they have taken Senior Anatomy as additional work, they may subsequently take the degree in Medicine in two years. Undergraduates who look forward to the study of Engineering may shorten a subsequent Engineering course by including in their Arts course as many as possible of the classes common to it and the Engineering course they have in view.

### Order of Classes.

The classes of a course may be taken in any order subject to the regulations regarding Order of Classes (page 39). The following schedule in which the classes are arranged in years shows the order recommended; and it is upon this arrangement that the time tables of lectures and examinations are based:—

#### First Year.

1. Latin 1, or Greek 1.

2. The classical language not selected as subject 1, or French 2, or German 2. (The candidate must pass the Matriculation Examination in the foreign language selected).

3. English and *Elocution.

4. Mathematics 1.

5. Chemistry 1 or 1A.

**Second Year.**

1. The language selected as subject 1 in the First Year.

2. The language selected as subject 2 in the First Year.

3. English 2.

4—5. Any two of the following:—Mathematics 2 or 3, Chemistry 2, Physics 1, Philosophy 1, Geology 1, a language not selected as subject 1 or 2.

If the classes in Philosophy and (Physics or Geology) are not taken in this year, they must be taken in a subsequent year.

**Third and Fourth Years.**

1. Latin 3, or Greek 3, or New Testament Greek. The language selected must have been taken during the First and Second Years.

2. History 1.

3—10. Eight classes selected from the subjects in the following groups, so that not more than five shall be taken from group A. or C., or six from group B.; and at least one from each of the groups A. and B.:—

| A. | B. | C. |
|---|---|---|
| Latin, | History, | Mathematics, |
| Greek, | Constitutional History | Astronomy, |
| Hebrew, | Constitutional Law, | Physics, |
| French, | Political Economy, | Chemistry, |
| German, | Philosophy, | Geology, |
| Keltic, | Education. | Geology, |
| English. | | Biology. |

*Or,* one of the following groups, together with five classes from groups A., B. and C., selected in accordance with the conditions stated under Affiliated Courses.

| D. | E. | F. |
|---|---|---|
| Hebrew, | Constitutional History, | Biology, |
| N. T. Greek. | Constitutional Law, | Histology, |
| | Contracts. | Physiology. |

*Students who matriculate into the Second Year must take Elocution with English 2 if they have not previously taken it.

## Ordinary Course for Bachelor of Science.

The ordinary course of study prescribed for the degree of Bachelor of Science consists of the following classes:—

(i) Three in German or French.

(ii) Two in each of the following: English including Elocution, French or German.

(iii) One in each of the following: Mathematics, Physics, Chemistry, Drawing.

(iv) *Either* one class in Geology or Philosophy, *or* a second class in Mathematics or Chemistry.

(v) Nine* single classes, or equivalents, so selected from the following groups that at least one class shall be chosen from each group and not more than four from groups B. and C. taken together:—

A.—Mathematics, Physics, Chemistry, Geology, Mineralogy, Biology, Anatomy, Histology, Physiology.

B.—Philosophy, Education, Political Economy.

C.—English, French, German.

The details of subjects studied in the above classes will be found under Courses of Instruction.

In choosing their elective classes students should have regard to the restrictions stated under Choice of Elective Classes in the course for the degree of Bachelor of Arts (page 20).

Lists of the elective classes chosen must be submitted for approval not later than Friday, September 25th, 1908.

### Affiliated Courses.

Undergraduates who look forward to the study of Engineering may complete a course in Civil or Mining Engineering in this University in two years after the completion of the Science course, provided they so select the classes in their Science course as to include a sufficient number of the classes common to it and the Engineering course they have in view.

Students who have registered as undergraduates in Medicine may complete their course in Medicine in three years after the completion of their Science course by taking

*See foot-note page 20.

the following classes as part of their course: Physics 1, Chemistry 1, Biology (Botany and Zoology), Junior Anatomy and Practical Anatomy. Such students are recommended to take the class in Histology also, in order to avoid conflict of hours in the time table of their subsequent course in Medicine.

Students registered as undergraduates in Medicine whose course in Science has included Chemistry 3, Histology and Physiology, in addition to the classes in Physics, Chemistry, Biology and Anatomy specified above, and who have taken Senior Anatomy (in the Faculty of Medicine) as an additional subject, may complete their course in Medicine in two years after completing the Science course.

### Order of Classes.

The classes of the above course may be taken in any order subject to the regulations regarding Order of Classes (page 20.) The following schedule in which the classes are arranged in years shows the order in which it is recommended that they be taken. The time table of lectures and dates of examinations are based upon this arrangement.

**First Year.**

1. *French, *or* German.
2. *The modern language not selected as subject 1.
3. English 1 and †Elocution.
4. Mathematics 1.
5. Chemistry 1A.
6. Drawing 1, *or* Freehand Drawing.

**Second Year.**

1. French.
2. German.
3. English 2.
4. Physics 1.
5. Mathematics 2 or 3, *or* Chemistry 2, 3, or 4, *or* Geology 1 or 2, *or* Philosophy 1.

*Students who have selected French as one of the languages for Matriculation must take French 2, and those who have selected German must take German 2.

†See foot-note, page 22.

**Third and Fourth Years.**

French *or* German.

**2—10.** Nine single classes, or their equivalents, selected from the subjects in the following groups, so that at least one class shall be chosen from each group, and not more than four from groups B. and C. taken together:—

| A. | | B. | C. |
|---|---|---|---|
| Mathematics, | Biology, | Political Economy, | English, |
| Physics, | Astronomy, | Philosophy, | French, |
| Chemistry, | Anatomy, | Education, | German. |
| Geology, | Histology, | | |
| Mineralogy. | Physiology. | | |

## Honour Courses.

An undergraduate who has completed the work recommended for the first and second years of the ordinary Arts or Science course with sufficient credit is allowed to restrict his attention during his third and fourth years to a more limited range of subjects than that prescribed for the ordinary course, by entering an Honour course. For admission to an Honour course an undergraduate must obtain the permission of the Faculty, which will, in ordinary circumstances, only be granted to students who have attained a first-class standing in those classes of the second year corresponding to the subjects of the Honour course selected, as well as a satisfactory standing in the other classes recommended for that year.

Honour courses are provided in the following departments:—(i) Classics, (ii) Latin and English, (iii) Greek and English, (iv) English and German, (v) English and English History, (vi) Philosophy, (vii) Pure and Applied Mathematics, (viii) Mathematics and Physics, (ix) Chemistry and Chemical Physics, (x) Geology. Undergraduates in Arts may enter any of these courses for which they are eligible. Undergraduates in Science may enter any of the last five courses for which they are eligible, namely, Philosophy, Pure and Applied Mathematics, Mathematics and Physics, Chemistry and Chemical Physics, and Geology.

An undergraduate who enters upon an Honour course in any of the above departments must take the advanced classes in the department chosen and certain other classes specified below in the requirements for the individual courses, and is required to make satisfactory progress in

these classes. He may select the remaining classes of his course, if he is an undergraduate in Arts, from any of the subjects named in groups A. to C. of the ordinary course in Arts, and if an undergraduate in Science, from any of the subjects in groups A to C of the ordinary course in Science, the choice in each case being subject to the approval of the Faculty.

The examinations in the subjects of an Honour course are held at the end of the last year of the course.

### I. CLASSICS.

Undergraduates taking the Honour course in Classics are required to take the ordinary and advanced classes of the third and fourth years in Latin and Greek and in addition two elective classes. They shall be examined in the following subjects:—

#### LATIN.

I. Candidates will be required to have a critical knowledge of the following works, in addition to those prescribed in the ordinary course:—

Plautus: *Captivi, Miles Gloriosus.* Terence: *Adelphi, Phormio.* Vergil: *Georgics*, I, IV. Horace: Epistles, I, II; *Ars Poetica.* Juvenal: *Satires*, I, VII, VIII, XIV. Cicero: *De Oratore*, I; *Philippics*, I, II; *Pro Cluentio.* Livy: XXI, XXII. Tacitus: *Annals*, I, II; *Agricola.* Pliny: *Letters*, I-III.

II. COMPOSITION.—Translation from English into Latin prose.

III. LITERATURE.—A general knowledge of the history of Latin literature, with a more minute knowledge of the lives and writings of the authors prescribed. (Mackail, *Latin Literature*, Cruttwell, *History of Roman Literature*).

IV. TRANSLATION AT SIGHT.—Passages from Latin books not prescribed will be set.

#### GREEK.

I. Aeschylus: *Eumenides, Prometheus Vinctus.* Sophocles: *Antigone, Electra.* (After 1909, *Oedipus Coloneus, Philoctetes*). Aristophanes: *Frogs, Knights.* Homer: *Odyssey.* V-VIII. Thucydides: II, III. Plato: *Republic*, I-IV. Demosthenes: *De Corona.* Aristotle: *Poetics.*

II. COMPOSITION.—Translation from English into Greek prose.

III. LITERATURE.—A general knowledge of the history of Greek literature, with a more minute knowledge of the lives and writings of the authors prescribed (Jebb, *Primer of Greek Literature;* Jebb, *Introduction to Homer;* Mahaffy, *History of Greek Literature;* Haigh, *Attic Theatre).*

IV. TRANSLATION AT SIGHT.—Passages from Greek books not prescribed will be set.

### II. LATIN AND ENGLISH.

Undergraduates taking the Honour course in Latin and English are required to take the ordinary and advanced classes of the third and fourth years in Latin and English and in addition two elective classes. They shall be examined in the following subjects:—

#### LATIN.

The Latin subjects prescribed for the Honour course in Classics.

#### ENGLISH.

The historical development of the language and literature to the year 1300. Bright, *Anglo-Saxon Reader*. Sievers, *O. E. Grammar* (trans. by Cook.) Pt. II. Morris, *Specimens of Early English*, I. Emerson, *History of the English Language*. Sight reading of Old English.

History of the Elizabethan and Early Stuart Literature—Sidney: *Apologie for Poetrie*. Hooker: Ecclesiastical Polity, Book I; Bacon: *Advancement of Learning, Essays*.

Marlowe: *Tamburlane, Edward II, The Jew of Malta*. Greene: *Friar Bacon and Friar Bungay*. Johnson: *The Alchemist, Every man in His Humor*. Beaumont and Fletcher: *Philaster, The Knight of the Burning Pestle*. Massinger: *A New Way to Pay Old Debts*. Webster: *The Duchess of Malfi*. Shakspere: *Titus Andronicus, Romeo and Juliet, Julius Caesar, Hamlet, Othello, Lear, Macbeth, Antony and Cleopatra, Coriolanus, Timon, The Two Noble Kinsmen*.

BOOKS RECOMMENDED: Sidney Cook's edition (Ginn & Co.), Hooker, Church (Clarendon Press); Bacon: *Advancement*, Wright (Clar. Press); *Essays* (Wright G. T. Series). History of Literature: Ten Brink, Saintsbury, Brooke, (Clarendon Press), "Mermaid," "Temple Dramatists," "Belles Letters," and Arbor editions of Elizabethan works.

In awarding Honours, the thesis for Distinction in English 4 (D) will be taken into consideration.

### III. GREEK AND ENGLISH.

Undergraduates taking the Honour course in Greek and English are required to take the ordinary and advanced classes of the third and fourth years in Greek and English, and in addition two elective classes. They shall be examined in the following subjects:—

#### GREEK.

The Greek subjects prescribed for the Honour course in Classics.

#### ENGLISH.

The English subjects prescribed for the Honour course in Latin and English.

### IV. ENGLISH AND GERMAN.

Undergraduates taking the Honour course in English and German must have taken German in the first and second years of their course, and are required to take the ordinary and advanced classes of the third and fourth years in English and German and, in addition, two elective classes. They shall be examined in the following subjects:—

ENGLISH.

The English subjects prescribed for the Honour course in Latin and English.

GERMAN.

Middle High German; Grammar (Wright, *Middle High German Primer);* Selections from Hartmann von Aue, Walter von der Vogelweide, Nibelungenlied, Gudrud, Wolfram von Eschenbach, Freidank, or Gottfried von Strassburg, Sebastian Brant, (Wackernagels *Kleineres Altdeutsches Lesebuch*).

Selections from Swiss and Plattdeutsch dialect literature.

German Literature of the 16th, 17th, and 18th centuries, with selections from authors of that period.

Two of the chief literary works of Gœthe not read in the ordinary course.

Translations of unspecified passages from any modern High German author.

Prose Composition.

### V. ENGLISH AND ENGLISH HISTORY.

Undergraduates taking the Honour course in English and English History are required to take the ordinary and advanced classes of the third and fourth years in English, and History 1, 2 and 3, and in addition three elective classes. They shall be examined in the following subjects:—

ENGLISH.

The English subjects prescribed for the Honour course in Latin and English.

ENGLISH HISTORY.

English History from A. D. 1603-1689.

BOOKS RECOMMENDED: Green: *History of the English People*, Vol. 3 Lingard: *History of England*, Vols. 8-10; Hallam: *Constitutional History of England*; Ranke: *History of England*; S. R. Gardner's works on this period; Clarendon: *History of the Great Rebellion*; Masson: *Life of Milton*; Carlyle: *Life of Cromwell*; Foster: *Life of Eliot*; Bayne: *Chief Actors in the Puritan Revolution.*

## VI. PHILOSOPHY.

Undergraduates taking the Honour course in Philosophy are required in the third and fourth years of their course to take the ordinary and advanced classes in Philosophy, and in addition, a sufficient number of electives to make ten classes in all. They are recommended to take German. They shall be examined in the following subjects:—

I. Weber: *History of Philosophy.*
Burnet: *Early Greek Philosophy.*
K. Fischer: *Descartes and his School.*

II. Greek Philosophy from the Sophists to Aristotle.
Plato: *Metaphysics.* Book I.
*Theaetetus* (with Dyde's Introduction).
Aristotle: *Metaphysics.* Book I.
*Ethics* (with Muirhead's Introduction).

III. Modern Philosophy from Locke to Kant.
Fraser: *Prolegomena to Locke.*
Seth: *Scottish Philosophy.*
Royce: *Modern Philosophy*, Part I.

A knowledge of Locke, Berkeley, Hume and Reid, as studied in the Class on Modern Philosophy is presupposed.

IV. Kant: *The Critiques of Pure Reason, of Practical Reason and of Judgment* (as in Watson's Selections).
Hegel: *Logic*, Chaps. I-VI (Wallace's Translation).
Seth: *Hegelianism and Personality.*

V Any *three* of the following:

1. Principles of Logic. Bosanquet: *Logic.*
2. Principles of Psychology. James: *Principles of Psychology.*
3. Principles of Ethics. Green: *Prolegomena to Ethics;* Hobhouse: *Morals in Evolution.*
4. Principles of Metaphysics. Taylor: *Metaphysics.* Sturt: *Idola Theatri.* James: *Pragmatism.*
5. Philosophy of Religion. Caird, E.: *Evolution of Religion;* McTaggart: *Some Dogmas of Religion.*

VI. Any *one* of the following:

1. History of Philosophy from Descartes to Leibnitz; Descartes: *Method, Meditation and Principles;* Spinoza: *Ethics;* Caird: *Cartesianism;* Pollock: *Spinoza;* Joachim: *Ethics of Spinoza;* Leibnitz *Monadology* (with Latta's Introduction).
2. History of Philosophy from Kant to Hegel. Hegel: *Logic* (Wallace's Translation); Seth: *Hegelianism and Personality*, and *From Kant to Hegel;* McTaggart; *Studies in Hegelian Dialectic and Cosmology.*

3. History of Philosophy from Hume to Spencer. Comte: *Positive Philosophy;* Mill: as in *Watson's Selections;* Spencer: *First Principles;* Mill: *Comte and Positivism;* Douglas: *John Stuart Mill;* Watson: *An Outline of Philosophy;* Stephen: *English Utilitarians.*

4. History of Ethics in Great Britain. Selby-Bigge: *British Moralists.* Douglas: *Ethics of Mill;* Spencer: *Data of Ethics;* Green: *Prolegomena to Ethics.* Sidgwick; *History of Ethics,* Ch. IV. Watson: *Hedonistic Theories,* Chaps. IV-XI Sorley: *Ethics of Naturalism.* Courtney: *Constructive Ethics,* Pt. II, Bk. I; Schurman: *Ethical Import of Darwinism;* Albee: *Utilitarianism;* Sidgwick: *Martineau, Spencer and Green.*

### VII. PURE AND APPLIED MATHEMATICS.

Undergraduates taking the Honour course in Pure and Applied Mathematics are recommended to take French or German in their first and second years, and Physics 1 in their second year. They are required, if they wish to complete the work for a degree in four years, to take in their third and fourth years four Advanced classes in Mathematics, Physics, 2, 3 and 4, and three electives. The standard of attainment shown in the examinations in Physics 2 and 3 in both years will be considered in estimating the results of the final examinations of the Honour course.

The subjects of examination shall be as follows: —

#### PURE MATHEMATICS.

Any four of the following:—

*(a)* Infinitesimal Calculus; *(b)* Plane and Solid Analytic Geometry; *(c)* Differential Equations; *(d)* Algebra (Determinants, Theory of Equations, Quantics, Invariants, Series, Functions of a real variable); (*e*) Projective Geometry.

#### APPLIED MATHEMATICS.

Kinematics and Dynamics of Particles, rigid bodies, flexible strings, elastic solids and fluids,—those portions of these subjects which are treated in Physics 4 or may be appointed for private reading in the course of the work of that class, the mode of treatment being by application of Analytical Geometry and the Differential and Integral Calculus.

### VIII. MATHEMATICS AND PHYSICS.

Undergraduates taking the Honour course in Mathematics and Physics are recommended to take French or German in their first and second years and Mathematics 2

and 3 and Physics 1 in their second year. They are required, if they wish to complete the work for a degree in four years, to take in their third year one Advanced class in Mathematics, Physics 2 or 3, Physics 6, and Chemistry 2; and in their fouth year one Advanced class in Mathematics, Physics 3 or 2, and Physics 4, 5, 7 and 8. The standard of attainment shown in the examinations in Physics 2 and 3 in both years will be considered in estimating the results of the final examinations of the Honour course.

Those who aim at High Honours will be expected either to prepare a thesis embodying the results of a short original investigation, or to exhibit a high standard of excellence in the more mathematical parts of the course.

The subjects of examination shall be as follows:—

1. MATHEMATICS.—Analytic Geometry and Calculus as in Mathematics 2 and 3, and any two of the advanced courses in Pure Mathematics.

2. APPLIED MATHEMATICS.—As outlined in the Honour Course in Pure and Applied Mathematics.

3. GENERAL PHYSICS.—A systematic general knowledge of all sections of the subject, as, *e. g.*, in Watson's *Text-book of Physics* (Longmans & Co.) with a more detailed knowledge of special sections illustrating the use of theory in research, such as the kinetic theory of gases, the theory of solutions and of electrolysis, and the wave theory of light. These requirements are based on the courses called Physics 2, 3, and 5.

4. EXPERIMENTAL METHODS.—A general acquaintance with the methods applicable in different classes of investigation, as in Glazebrook and Shaw's *Practical Physics* (Longmans, Green & Co.), Ostwald's *Physico-Chemical Measurements* (Macmillan & Co.)—The experimental methods of the following memoirs:—Joule's papers on the determination of the Mechanical Equivalent of Heat, contained in his *Scientific Papers* (Taylor & Francis), vol. I, pp. 123, 172, 298, 542, 632; Faraday's *Experimental Researches in Electricity* (Quaritch), vol. I, Series iii, iv, v, vi, vii; Lord Kelvin's papers on the Electrodynamic Qualities of Metals, in his *Mathematical and Physical Papers* Vol. II, (Camb. Univ. Press). The treatment of observation and the discussion of the accuracy of experimental results, as in Holman's *Precision of Measurements* (John Wiley & Sons) supplemented by the more purely physical chapters of Merriman's *Text-book of Least Squares* (J. Wiley & Sons).

### IX. CHEMISTRY AND CHEMICAL PHYSICS.

Undergraduates taking the Honour course in Chemistry and Chemical Physics are recommended to select German as one of the subjects of their first and second years. They

are required, if they wish to complete the work for a degree in four years, to take in their third and fourth years the following classes:—Mathematics 2 and 3, Physics 2, 3, 5 and 6, Chemistry 5, 6, 7 and 8, and two electives.

Candidates for High Honours will be expected either to prepare a thesis embodying the results of a short original investigation, or to show special attainments in some branch of laboratory work, as the preparation of organic compounds, or the analysis of iron and steel, of ores, or of water. In estimating the results in the final examination of the Honour course, the standard of attainment shown in the following Physics and Chemistry classes will be considered:—Physics 2, 3 and 6, and Chemistry 7 and 8.

Candidates shall be examined on the following subjects:—

1. GENERAL CHEMISTRY.—The principles of Chemistry as in Ostwald's *Principles of Inorganic Chemistry*, translated by Findlay (Macmillan & Co.).

2. ORGANIC CHEMISTRY.—The occurrence, general modes of formation, physical properties, behaviour and constitution of the principal compounds of carbon as in Bernthsen's *Organic Chemistry*, translated by McGowan (Blackie & Son, Van Nostrand); and some present day problems of Organic Chemistry as in Lachman's *Spirit of Organic Chemistry* (The Macmillan Co.)

3. HISTORY OF CHEMISTRY.—Outlines of the history of Chemistry. Candidates will be expected to have an acquaintance with the following: Tilden: *Short History of the Progress of Scientific Chemistry* (Longmans, Green & Co.); Schorlemmer: *Rise and Development of Organic Chemistry* (Macmillan & Co.); Roscoe: *Dalton and the Rise of Modern Chemistry* (Macmillan & Co.); Boyle, Priestley, Scheele, Cavendish, Lavoisier, Graham, and Woehler in Thorpe's *Essays in Historical Chemistry* (Macmillan & Co.). Candidates will also be expected to have read the following memoirs: Graham: *Researches on the Arseniates, Phosphates, and Modification of Phosphoric Acid*, Alembic Club Reprints, No. 10 (W. F. Clay); Liebig and Woehler: *Ueber das Radikal der Benzoesaure* (Ostwalds *Klassiker*, No. 22); Liebig; *Ueber die Constitution der organischen Sauren* (Ostwalds *Klassiker*, No. 26).

4. LABORATORY METHODS.—The principles and methods of qualitative and quantative analysis and the practical details of laboratory operations as in Talbot's *Quantitative Analysis* (The Macmillan Co.), Ostwald: *Foundations of Analytical Chemistry* (Macmillan & Co.), and in typical exercises selected from Cohen's *Practical Organic Chemistry for Advanced Students*. Gatterman's *Practical Methods of Organic Chemistry*, translated by Schober, and Lengfeld's *Inorganic Chemical Preparations* (The Macmillan Co.).

The above requirements in Chemistry are in large part based on the work of the classes known as Chemistry 5, 6, 7, and 8.

5. CHEMICAL PHYSICS.—Those sections of Physics which have an intimate bearing upon chemical research, viz., the properties of gases and liquids, including the kinetic theory of gases and the theory of solutions, the theory of heat, electrolysis, and the wave of theory of light.—Physical experimental methods which are applicable in chemical research, as in Ostwald's *Physico-Chemical Measurements*, (Macmillan & Co.)—The discussion of the degree of accuracy of experimental results, as in Holman's *Precision of Measurements* (J. Wiley & Sons).

A large part of the requirements in Chemical Physics is based on the work of the classes known as Physics 2, 3, and 5.

## X. GEOLOGY.

Undergraduates taking the Honour course in Geology are recommended to take Geology 1, and Physics 1, in the second year, candidates are required to take Mineralogy 1, and Geology 2. In the third and fourth years they should take, in addition to the required courses in Geology, Biology, Chemistry 2, Chemistry 7, and Physics 2, or such of these classes as have not been previously taken. In the fourth year, special lines of study will be taken up with the instructor in the Research course, equivalent in amount to at least two courses, and involving original field work, reading, and one or more theses. In addition, there will be needed extra reading for the final examinations, along such of the lines mentioned below as are not taken up in classes or conference.

In determining Honours at the end of the Honour course, weight will be given, not only to the final examination, but to the records of the various courses, and to the maturity of thought and method shown during the four years' work.

The subjects of the final examinations shall be as follows:—

1. A sight translation of a portion of some geological memoir in German, and one in French.

2. The History of Geology. Books recommended:—Lyell: *Principles of Geology*, 11th ed., vol. I, chapters 1 and 2; Geikie, *The Founders of Geology;* Zittel, K. von: *History of Geology and Paleontology;* White, A. D.: *A History of the Warfare of Science with Theology in Christendom*, vol .I, especially chapter 5. Some of the original papers read in connection with other topics may be available also for this.

3. Advanced structural and dynamical Geology, and the Geology of Canada, including both reading and field work done in various courses.

4. Economic Geology, metallic and non-metallic; including *(a)* theories of the formation of coal and petroleum, *(b)* genesis of veins and vein ores, *(c)* the economic geology of some region studied especially in the course.

5. Special topics of the fourth year. This will be in part an oral exposition and defence of a thesis, given at the last seminary conference of the term.

## Degrees with Distinction.

The degree of Bachelor of Arts or Science with Distinction will be conferred on undergraduates for special excellence shown in the classes recommended to be taken in the second, third and fourth years of the ordinary course. The award of such degree is based upon the Class Distinctions (page 40) gained by candidates; and not only are the number and grade of such Distinctions considered, but also the extent and character of the work by which they have been gained. Distinctions gained in recognized classes of other Faculties of the University are taken into consideration, but not those gained in other colleges, though such classes may be recognized for the degree.

Candidates for Distinction are advised to consult the Faculty at the beginning of the third and fourth years with respect to the selection of classes.

## Degrees with Honours.

The Bachelor of Arts or Bachelor of Science degree with Honours in any one or more of the departments of study in which Honour courses are provided, will be conferred on undergraduates for special excellence shown in the subjects of such courses.

A candidate for Honours may defer his examination in the subjects of his course until a year after he has passed the examinations in the ordinary subjects of the fourth year; in which case, however, such candidate shall not be entitled to his degree until he has passed the examination of such Honour course.

Successful candidates will be declared to have obtained their degrees With Honours, With High Honours, or With High Honours and a Medal.

## Degree of Master of Arts.

The degree of Master of Arts will be conferred on a Bachelor of Arts of this University of at least one year's standing and of good character, either on his submitting to the Faculty a satisfactory thesis embodying the results of original research in some literary, philosophical or

scientific subject, or on his passing his examination in a course of study, appointed or approved by the Faculty, of at least the extent represented by the academic work of one year of the Arts course. In the latter case, no fixed courses of study are laid down, the intention being to encourage graduates to prosecute advanced courses of study either at this or at any other College, or by private reading, and to adapt the courses to their individual tastes and capacities. But no course of study shall be approved unless it is confined either to one department of study or to closely related departments.

Theses must be sent to the Secretary of the Faculty on or before the first day of March. Examinations shall be held ordinarily at the time of the Spring Examinations; but in special circumstances, they may be held in Autumn. Candidates must give one month's notice of their intention to appear for examination. On transmitting the thesis, or on giving notice of intention to appear for examination, a fee of five dollars is to be paid.

## Degree of Master of Science.

The degree of Master of Science may be conferred on a Bachelor of Science of at least one year's standing and of good character, either on his submitting to the Faculty a satisfactory thesis embodying the results of original research in some department of pure or applied science, or on his passing an examination in a course of scientific study, appointed or approved by the Faculty, of about the extent represented by the academic work of one year of the Science course. In the latter case no fixed courses of study are laid down, the intention being to encourage graduates to prosecute advanced courses of study, either at this or at any other College, or by private reading, and to adapt the course to their individual tastes and capacities; but no course of study shall be approved unless it is confined either to one department of science, or to closely related departments.

Theses must be sent to the Secretary of the Faculty on or before the first day of March. Examinations shall be held ordinarily at the time of the Spring examinations; but in special circumstances they may be held in the Autumn. Candidates must give one month's notice of their intention to appear for examination. On transmitting the thesis, or on giving notice of intention to appear for examination, a fee of five dollars is to be paid.

## Degree of Bachelor of Music

The course of study for the degree of Bachelor of Music may be completed in three years, and includes, besides Acoustics (Physics 1), the following subjects:—English, Harmony, Counterpoint, Canon and Fugue, Form, and History of Music, for two years in each case; Instrumentation and Analysis of Scores, for one year.

Candidates are required to pass in French and German in the Junior Matriculation Examination, and to satisfy the examiners before proceeding to the final examination for the degree that they have a good reading knowledge of these languages.

Besides attending the courses of instruction in the above subjects given in this University or in recognized institutions, performing the required class exercises and passing the examinations, candidates are also required to compose the exercises specified below, and to give evidence of their ability as musical performers by playing before one or more of the examiners, on the pianoforte or organ, the pieces of music named below.

### SCHEDULE OF CLASSES.

The classes in the above subjects may, if desired, be extended over more than three years. Students are recommended to take them in the following ordr:—

**First Year.**

1. Harmony in not more than four parts.
2. History of music from 1600 to 1750.
3. Acoustics in so far as concerned with the Theory of Music (given in Physics 1).
4. English 1.

**Second Year.**

1. Harmony in not more than five parts.
2. Simple counterpoint in two or three parts.
3. Canon in two parts, Imitation and Fugue in not more than three parts.
4. Form: Elementary Forms, Phrases, Periods, Open and Closed Forms.
5. Elements of Instrumentation.
6. History of music from 1750 to the present time.
7. English 2.

### Third Year.

1. Single and Double Counterpoint in not more than five parts.
2. Strict and Free Fugue in not more than five parts.
3. Form: Binary Form, Ternary Form, Rondo and Sonata.
4. Analysis of certain prescribed scores.

### EXERCISES.

The following exercises are to be composed by the candidate: *(a)* A solo song with pianoforte accompaniment; *(b)* a four part vocal composition; *(c)* an instrumental composition (other than a dance) for pianoforte, organ, or other stringed or wind instruments, with pianoforte accompaniment.

### PRACTICE OF MUSIC.

The final examination in the Practice of Music shall include one of the following groups:—

FOR THE PIANOFORTE.

Prelude and Fugue in E minor ..... *Mendelssohn.*
C major Sonata (Waldstein) ..... *Beethoven.*
A ♭ major Polonaise ..... *Chopin.*
D ♭ major Nocturne ..... *Chopin.*
Concert-Etude No. 1 (Waldesrauschen) ..... *Liszt.*
Rhapsodie No. 12 ..... *Liszt.*

FOR THE ORGAN.

Prelude and Fugue in E major ..... *Bach.*
Sonata in D minor (solo form) ..... *Merkel.*
Air with Variations and Fugato in A ..... *Smart.*
Third Organ Sonata ..... *Mendelssohn.*

## Certificate in Teaching.

This Certificate will be granted to candidates on the following conditions:

1. They must have received the degree of Bachelor of Arts or Science from this or some recognized University before the certificate is granted. Candidates, however, may have qualified for the certificate before attaining to the Bachelor's degree.

2. They must have spent, at least, 100 hours in observation and practice under approved supervision, and must have taught two or more lessons in a manner satisfactory to Examiners appointed or approved by this University.

3. They are required to attend the courses in the Science, History and Practice of Education given in this University. Candidates, however, who have taught and whose work has been favorably reported upon by a recognized authority, or who have taken a course in a Normal School, will not be required to take a course in Practice. Such candidates may be exempted from the second requirement mentioned above.

4. They must pass examinations in the following:—

James: *Talks to Teachers.*
King: *Development of the Child.*
Hall: *Youth.*
Fitch: *Lectures on Teaching.*
Adams: *Primer on Teaching.*
Bagley: *The Educative Process*, and *Classroom Management.*
Laurie: *Language and Linguistic Method.*
Adams: *Herbartian Psychology.*
Plato: *Republic*, as in Bosanquet's Slections.
Burnet: *Aristotle on Education.*
Ascham: *Schoolmaster.*
Milton: *Tractate on Education.*
Locke: *Thoughts on Education.*
Spencer: *Education.*
Thring: *Theory and Practice of Teaching.*
Laurie: *Educational Opinion since the Renaissance.*
Russell: *German Secondary Schools.*
Schools Systems in Canada and United States.

Candidates may, however, be exempted from such parts of the above examination as are included in the class examinations passed by them.

## General Regulations for Degrees.

### Matriculation.

Candidates for a degree must pass the Junior or Senior Matriculation (pp. 9-14), and they are recommended to do so before entering upon a course of study leading to a degree. A candidate is in all cases expected to have completed his Matriculation before entering the classes proper to the *third year of his course; and failure to do so may involve the non-recognition of classes subsequently taken. Degrees are not conferred until at least two Academic years have elapsed from the date of completion of Matriculation.

---

*For the purpose of this regulation attendance on five single classes or equivalents shall be regarded as constituting a year of attendance.

## ATTENDANCE.

Candidates for a degree or certificate are required to attend the classes of their prescribed course regularly and punctually. Attendance is recorded in each class immediately before the work of the class is begun, and the record is not amended in the case of students entering thereafter unless satisfactory reasons are assigned. A student's attendance on a given class is not under ordinary circumstances regarded as regular, unless he has attended at least nine-tenths of the lectures or other meetings of the class.

A student whose attendance on any class is irregular may be excluded from the Christmas and Spring examinations in that class, and in such case his attendance is not recognized as qualifying for a degree.

## CLASS-WORK.

Candidates, in order that their class work may be recognized as qualifying for a degree or certificate, must conform to the following requirements:—

1. They must appear at all examinations, prepare such essays, exercises, reports, etc., as may be prescribed, and in the case of a class involving field or laboratory work, complete such work satisfactorily. Failure to meet these requirements in any class may involve exclusion from the Christmas and Spring examinations in that class.

2. They must secure positions on the Pass List. In determining this list both the standing attained in prescribed class exercises and in field or laboratory work and that in the various examinations are taken into consideration.

## ORDER OF CLASSES.

The order in which the classes of a course may be taken is subject to the following provisions:—

1. In any one subject classes are to be taken in the order of their advancement.

2. The class or classes specified under Courses of Instruction (pp. 57, et seq.) as preliminary to a given class are to be taken before that class.

3. A student who has failed to pass in an elementary or preliminary class in any subject shall not be permitted to enter a more advanced class requiring that subject, unless he has taken the Supplementary or a Special examination in such preliminary class. A student who has appeared at, but has failed to pass the examination, may enter the more advanced class only by permission of the Faculty. Such permission will be granted only to those whose standing seems to justify it; and if granted, may be withdrawn if the instructor of such advanced class report unfavorably upon the work done by the student so admitted.

## Examinations.

### Sessional and Class Examinations.

In all classes other than purely laboratory classes, two examinations, at least, are held,—the Christmas examination immediately before the Christmas vacation, and the Spring examination, after the close of lectures in the Spring. In some classes other examinations may be held, at dates appointed by the instructor. At the Spring examination questions may be set on any subject treated during the session. The dates of examination are arranged so as to enable students who follow the order of classes recommended above (pp. 22, 24,) to appear at all the examinations of the classes they may be attending.

### Distinction Examinations and Class Distinction.

Students who attain a certain standard of excellence in the work of a class are awarded Distinction in that class. In some classes, in addition to the ordinary work required for the attainment of a position on the Past List, additional work, consisting of private reading, essays, reports, field or laboratory work, may be prescribed for students who aim at Class Distinction. In such classes special examinations are held in this additional work at the end of the session, and the award of Distinction is based upon the ordinary and the additional work of the class. In all other classes the award is made upon the standard reached in the ordinary class-work.

Class Distinctions are of two grades,—First and Second Class; but candidates who attain a standing considerably above that required for First Class will be indicated as having obtained a High First Class.

Names appearing on the Pass List are arranged in order of merit. In the Distinction lists names are arranged in alphabetical order in each grade.

### Supplementary and Special Examinations.

A student who fails to secure a position on the Pass List in any class, but who has otherwise completed his class-work, shall be allowed the Supplementary examination in such class at the beginning of the next session of his attendance, on the day appointed in the University Almanac. A student who fails to appear at or to pass the Supplementary examination can only get credit for that class by passing a special examination therein.*

The following are the times at which Special examinations may be held:—

(*a*) During the Supplementary examinations.

(*b*) Within one week following the first day of lectures after the Christmas vacation.

(*c*) During the first week of November (for theological students only).

No award of Class Distinction is made on the results of a Supplementary or Special examination.

A student wishing to appear as a candidate at a Supplementary or Special examination, shall be required to give notice of his intention to the Secretary of the Faculty at least one week before the date of such examination, the fee to be remitted with such notice. For fees for Supplementary and Special examinations, see p.

## Prizes and Scholarships.

*(The Senate reserves to itself the right of withholding Medals, Prizes and Scholarships, in cases in which sufficient merit is not shown).*

### Graduation Prizes.

The Sir William Young Gold Medal, founded by bequest of the late Sir William Young, will be awarded on graduation to the student who stands first among those taking High Honours in Pure and Applied Mathematics, provided he attain a standard considerably above that required for High Honours.

University Medals will be awarded on graduation to students who take High Honours in other departments than Mathematics, on the same conditions as the Sir William Young Gold Medal.

*Students who have failed to pass in any class should carefully note that any Examination taken subsequent to the Supplementary Examination, held in the September of the next session of their attendance, is a Special Examination.

THE AVERY PRIZE.—This prize, the interest of $500, bequeathed for this purpose by the late J. F. Avery, M. D., will be awarded on graduation to the student standing highest among those graduating with Distinction.

### UNDERGRADUATE PRIZES.

NORTH BRITISH SOCIETY BURSARY.—A Bursary of the annual value of $60, founded by the North British Society of Halifax, is offered for competition at the examinations of the second year's course in Arts. It is tenable for two years, namely, during the third and fourth years of the undergraduate course in Arts. Candidates must be undergraduates who have completed two years of the curriculum, and must be eligible at the proper age for membership in the North British Society. The next competition will take place in April, 1910.

THE WAVERLEY PRIZE.—This prize, the interest of an endowment of $1000, will be awarded annually to the student of the second year, who stands highest at the examinations in Mathematics 2 and 3, the winner of the North British Society Bursary being excluded.

### ENTRANCE SCHOLARSHIPS.

SIR WILLIAM YOUNG AND PROFESSOR'S SCHOLARSHIPS.—These scholarships are each of the value of Fifty Dollars, and awarded to qualified students entering one of the courses in Arts, Science or Engineering, leading to a degree. In order to qualify for a scholarship a student must satisfy the requirements for Matriculation, either by passing the Matriculation examination or by presenting a certificate accepted as an equivalent. The award is made on the recommendation of one of the following academies or schools. In making a recommendation the staff is required to have regard to the candidate's standing only in the subjects required for matriculation. Should an Academy not be prepared to make a nomination at the time appointed, it may transfer its privilege to the next year in which it has no nomination. Where one scholarship is assigned to two Academies and neither nominates, the right to nominate may be transferred to a later date.

The privilege of recommending a scholar in 1908, and probably 1909, has been granted to Prince of Wales College, Pictou Academy, Truro Academy, Halifax Academy, Sydney Academy, and the New Glasgow High School. To the following the privilege is also given:—In 1908,

Amherst Academy, Lunenburg Academy, Yarmouth Academy, Windsor Academy, North Sydney High School, Kentville Academy, Bridgewater or Parrsboro High School. 1909 Shelburne or Liverpool Academy, Guysboro Academy, Stellarton or Oxford High School. This list will be revised each year. When a nomination is offered to one of two institutions, the candidate standing the highest will be appointed.

THE MACKENZIE BURSARY.—The Mackenzie Bursary, of the value of Two Hundred Dollars, will be offered annually in accordance with the following condition of bequest:—Competitors of the name of Mackenzie, Maclean or Fraser, who obtain Distinction, will be given the preference. Should no candidate of the name of Mackenzie, Maclean or Fraser obtain Distinction, the Bursary will be awarded to the candidate standing highest among those obtaining Distinction.

The Bursary is payable in four annual instalments; and the payment of any instalment is conditional on the bursar's attending the classes required for undergraduates, and making satisfactory progress therein.

## THE RHODES SCHOLARSHIPS.

The scholarships, established by the late Right Hon. Cecil J. Rhodes for male students, are of the annual value of £300, and are tenable for three consecutive academic years. The holders of these scholarships are required to continue their studies at the University of Oxford.

The election of scholars in Canada takes place each year during the month of January. The scholars begin residence at Oxford in October of the year for which they are elected.

In this Province it has been determined that nominations to the scholarships shall be made by the chartered Universities and Colleges in the following order:—

| | |
|---|---|
| 1904.....Dalhousie. | 1909.....Kings. |
| 1905.....Acadia. | 1910.....Dalhousie. |
| 1906.....Dalhousie. | 1911.....St. Francis Xavier. |
| 1907.....Acadia. | 1912.....Acadia. |
| 1908.....Dalhousie. | |

Where Universities make appointments the Trustees require the final decision to be made through a Committee of Selection consisting of the President or Principal and four members elected by the Faculty of the University.

The conditions of eligibility for a Canadian Scholarship, according to a memorandum issued by the Trustees, are as follows:—

1. Candidates shall be British subjects, and unmarried. They shall have passed their nineteenth, but not have passed their twenty-fifth birthday, on October 1st of the year for which they are elected.
2. An elected Scholar shall have reached at least the end of his sophomore or second year's work in some recognized degree-granting University or College of Canada.
3. Candidates may elect whether they will apply for the Scholarship of the Province in which they have acquired any considerable part of their educational qualification, or for that of the Province in which they have their ordinary private domicile, home or residence. They shall be prepared to present themselves for examination or election in the Province they select. No candidate may compete in more than one Province, either in the same or in successive years.
4. Only candidates who have passed an equivalent to the Oxford Responsions Examination, or those who are exempted from Responsions by the Colonial Universities' Statute, are eligible for election.

NOTE.—Undergraduates of this University who have taken a full course for two years, including Greek, are admitted to advanced standing at Oxford, and are excused from Responsions.

In any doubtful cases of eligibility the decision of the Committee of Selection shall be final.

The following have been elected by this University:—

1904.—GILBERT S. STAIBS, B. A.
1906.—ARTHUR MOXON, B. A.
1908.—ERNEST A. MUNRO.

## 1851 EXHIBITION SCIENCE RESEARCH SCHOLARSHIP.

Her Majesty's Commissioners for the Exhibition of 1851 have, for some years, offered Scholarships in certain Universities of the United Kingdom and the Colonies, with the intention of enabling students of science who have indicated high promise of capacity for original research to continue the prosecution of science with the view of aiding in its advance or in its industrial applications. In 1894 and alternate years since, the nomination to one of these Scholarships has been placed at the disposal of this University. It is expected that a similar nomination will be placed at the disposal of the University in 1910.

The following, nominated by this University, have held scholarships:—

1894-6.....F. J. A. McKittrick, B. Sc.
1896-9.....D. McIntosh, B. Sc.
1898-1901.....E. H. Archibald, M. Sc.
1900-3.....James Barnes, B. A.
1902-4.....T. C. Hebb, M. A., B. Sc.
1904-7.....W. H. Ross, M. Sc.
1906- .....G. M. J. Mackay, M. A.

These Scholarships are of the annual value of one hundred and fifty pounds sterling; are tenable for two years, subject to fulfilment of certain conditions mentioned below, or, by special resolution of the Commissioners, for three years; and are open to women as well as to men.

The following were the conditions of nomination in 1908:—

*(a)* The nominee must be a British subject.

*(b)* He (or she) must, at the date of the nomination, have been for a term of three years, a *bona fide* student of Science in a University or College (or in Universities or Colleges) in which special attention is given to scientific study, a graduate who has continued his studies at a College after graduation being regarded as a student.

*(c)* He must have been a student of Dalhousie College either during the academic year at the end of which the nomination is made, or during the previous year, but in the event of his having ceased to be a student of Dalhousie College at the end of the previous year, he must have been engaged during the year of nomination solely in scientific study.

*(d)* He must have indicated high promise of capacity for advancing Science or its applications by original research. Evidence of capacity for original research in Science is strictly required, this being one of the main qualifications for a scholarship; and the nominee will be selected from the students qualified for nomination mainly on the ground of superiority in this respect, although the general proficiency attained in the study of Science, special knowledge of departments of Science closely related to that to which the candidate intends to devote himself, and a knowledge of such subjects as French and German which are useful in the prosecution of research, will also be taken into account.

*(e)* There is no absolute restriction as to age; but a nominee whose age exceeds 30 will only be accepted by the Commissioners under very special circumstances.

The nomination which is to be made by this University to the Commissioners in London, will be referred by them to a committee of eminent scientific men, who will advise them upon it; and the nominations will take effect on its being confirmed by the Commissioners.

The scholarship may be held at any University in the United Kingdom or abroad, or in any other institution to be approved by

the Commissioners, the only restriction being that the institution selected shall be properly equipped for the prosecution of Science. But a scholar will be required, in the absence of special circumstances, to proceed to an institution other than that by which he is nominated.

The scholar, during his tenure of the scholarship, must devote himself wholly to study and research, more especially in some branch of Science, such as Physics, Mechanics, or Chemistry, the extension of which is especially important to our national industries; and he is not allowed during such tenure to hold any position of emolument.

The continuance of the scholarship for the second year is dependent upon the work done in the first year being satisfactory to the Scientific Committee appointed by the Commissioners.

Only one-fourth, at most, of the scholarships granted in any one year, are renewed for a third year, the renewals being awarded to the most deserving of the candidates.

In cases in which the candidate nominated for a scholarship appears to H. M. Commissioners to have had insufficient opportunity of showing whether or not he has the power to carry on independent research, and not therefore to be immediately qualified for a scholarship, but to give promise of becoming so after a year's experience of research work, said candidate also not being in a position to continue his studies without assistance, H. M. Commissioners may award him a Probationary Bursary. The regulations under which such Bursaries are tenable may be obtained on application to the Secretary of the Senate.

Students who desire to become candidates for nomination to the above Scholarship must make application to the President of the University on or before the 1st day of February. In making such application they must furnish a statement of the following particulars:—

*(a)* Name and address.

*(b)* Age and birth place.

*(c)* Institution or institutions in which candidate's term of study has been passed.

*(d)* Specific statement of qualifications of candidate, including particulars of his college career, and of original research in which he has been engaged.

*(e)* Name of institution to which candidate proposes to attach himself during the tenure of Scholarship.

*(f)* Statement of the particular scientific work, specifying the branch of science, to which the candidate proposes more especially to devote himself

*(g)* Statement as to whether or not the candidate will be prepared to accept a probationary Bursary in the event of the Commissioners being unable to award a full Scholarship on the evidence submitted, and in the event of his being prepared, a further statement as to his being unable to continue his studies without assistance.

As the University is required to certify the correctness of the above statement in the case of the candidate nominated, the statement must be accompanied by satisfactory evidence as to all particulars which are not in the University records. Thus age, attendance at other Universities or Colleges, and accounts of original researches conducted elsewhere, must be properly attested.

## Fees.

*All Fees are payable in advance, and until the Fees are paid the student will neither receive credit for attendance upon any class, nor be admitted to any examination.*

The Registration Fee entitles a student to the use of the University Library.

A graduate of this University attending classes, not leading to a Bachelor's degree, nor of a technical or professional character, is required to pay only the Registration Fee, but should he attend a laboratory class he must also pay the laboratory fee required of students taking such class.

The following is a statement of the fees payable by undergraduates and general students:—

FOR REGISTRATION.

| | |
|---|---|
| Registration, payable by students taking only one class | $ 3 00 |
| " " " " more than one class | 5 00 |
| " after September 22nd, additional fee | 1 00 |

FOR TUITION.

| | |
|---|---|
| Elocution, or Beginners' Greek (when taken with Greek 1) | 3 00 |
| Physics 6, 7 or 8, Geology 1 or 2, or Mineralogy | 8 00 |
| Chemistry 1A or 2, including laboratory work of not more than four hours a week | 10 00 |
| Chemistry 1A or 2, with *laboratory work of five or more hours a week, Chemistry 3 or 4, Biology, or Drawing 1 | 12 00 |
| Physics 9, Chemistry, 7, 8, or 9 | 14 00 |
| Any other class | 6 00 |

*All students taking classes involving laboratory work are required to make a deposit of Five dollars on entering the class. This amount, or if charges for breakage or materials used have been incurred, what remains of it after such charges have been deducted, is returned to the student at the end of his laboratory course.

### For Examinations.

| | |
|---|---|
| Supplementary examination in one subject | 2 00 |
| " " more than two subjects | 5 00 |
| Special examination in one subject | 4 00 |
| " " more than two subjects | 10 00 |
| Examination or Report on Thesis for M. A. or M. Sc. degree | 5 00 |
| Examination for B. Mus. degree, in each year of thecourse | 10 00 |

### For Certificates and Diplomas.

| | |
|---|---|
| Special Certificate of Standing | 1 00 |
| B. A., B. Sc., M. A., or M. Sc. diploma | 5 00 |
| B. Mus. diploma | 10 00 |
| An *ad eundem* diploma | 10 00 |

# Faculty of Engineering.

THE PRESIDENT.

A. MACMECHAN, Ph. D. — HOWARD P. JONES, Ph. D.
E. MACKAY, Ph. D. — MURRAY MACNEILL, M. A.
J. E. WOODMAN, A. M., S. D. — J. CARRUTHERS.
A. S. MACKENZIE, Ph. D. — A. E. STONE, Ma. E.

*Registrar of the Faculty:* PROFESSOR J. E. WOODMAN.

**Correspondence should be addressed:**—*The Secretary, Faculty of Engineering, Dalhousie College, Halifax, N. S.*

## Courses for Bachelor of Engineering.

*Courses extending over four years and leading to the degree of Bachelor of Engineering are prescribed in—

(i.) Civil Engineering, and

(ii.) Mining and Metallurgical Engineering.

The object of these courses is to give a thorough and practical training in the principles underlying all engineering work, and to fit graduates for successful business and professional careers.

Students are first instructed in the fundamental principles upon which all branches of engineering are based, and are afterward taught the application of these principles to practical work.

Since the necessary subjects preliminary to technical studies, such as Mathematics, Physics, Chemistry, English and Drawing, are nearly the same for all departments of engineering, a student may also acquire the preliminary training for Electrical, Mechanical or other department of Engineering, during the first two years of the Civil or Mining Engineering course.

In addition to the work of the regular courses, lectures are given during the session before the Engineering Society of Dalhousie University, by prominent engineers, describing the work with which they have been connected; and students also have the privilege of attending the meetings and using the libraries of the Nova Scotia Mining Society, of the Nova Scotia Institute of Science, and other organizations meeting in the city, whose proceedings are of scientific or technical interest. Students have the further advantage of being brought in contact

*These regulations will be modified to meet the requirements of the courses in the N. S. Technical College, when that College determines its courses.

with actual engineering and mining practice by visits to works of engineering interest and to metallurgical plants and mines.

### I.—CIVIL ENGINEERING.

The course in Civil Engineering is designed to fit the graduate to take a position in any of the special branches of Civil Engineering, such as Railroad Engineering, Hydraulic Engineering, Highway Construction, Municipal Engineering, Bridge and Structural Engineering, Sanitary Engineering and Surveying. The course also provides instruction in the principles of Steam Engineering, Electrical Engineering, and Mechanical Engineering.

The student has thus a wide field from which to choose his life work, and the course fits him for the management of business and engineering enterprises after a few years in practical work.

#### Method of Instruction.

The instruction is carried on by lectures, recitations, and by actual work in the field, drawing office and laboratory. In practice the engineer must not only understand what is required of him, but he must also be able to do it satisfactorily, economically, and quickly. To accomplish this the student is required to recite, and to do the work himself neatly, accurately, and quickly.

The work of the first two years is arranged to suit the needs of those wishing to qualify themselves as land surveyors.

#### Order of Classes.

The prescribed classes of the course, arranged in years, and the number of hours of class-work per week required in each class, are given in the following schedule. Details of the classes will be found under Courses of Instruction:

**First Year.**

| | Hours. | | Hours. |
|---|---|---|---|
| Mathematics 1 | 5 | Elocution (one term) | 2 |
| Chemistry 1 A | 7 | French 2, *or* | 2 |
| Drawing 1 | 16 | German 2 | 3 |
| English 1 | 2 | *Engineering Camp.* | |

**Second Year.**

| | Hours. | | Hours. |
|---|---|---|---|
| Mathematics 2 and 3 | 5 | Surveying 1 (first term) | 12 |
| Physics 1 | 3 | " (second term) | 4 |
| Physics 6 | 5 | French 2 *or* | 2 |
| Chemistry 4 | 7 | German 2 | 3 |
| Drawing 2 (second term) | 2 | *Engineering Camp* | |

**Third Year.**

| | Hours | | Hours. |
|---|---|---|---|
| Physics 2 B..... ..... | 2 | Surveying 2 (s'c'nd t'm) | 9 |
| Geology 1 (first term).. | 10 | Hydraulics 1..... | 2 |
| " (second term).. | 6 | Mechanics ..... | 3 |
| Astronomy 2 (s'c'nd t'm) | 2 | Structures 1 (s'c'nd t'm) | 4 |
| Surveying 2 (first term) | 12 | *Engineering Camp.* | |

**Fourth Year.**

| | Hours. | | Hours. |
|---|---|---|---|
| Physics 7..... | 2 | Railway Economics, | |
| Geology 4 (first term).. | 7 | (first term) ..... | 1 |
| Surveying 3 (s'c'nd t'm) | 2 | Structures 2..... | 15 |
| Hydraulics 2 (first t'm) | 2 | Metallurgy 6..... | 2 |
| Hydraulics 2 (s'c'nd t'm) | 5 | Engineering Law, (one term) ..... | 1 |

### Summer Thesis.

Students of the first, second and third years will be required to prepare, during the summer, a thesis describing in detail some piece of engineering work, or structure with which they have been connected during the vacation.

These theses must be submitted on or before October 1st.

### Graduation Thesis.

Every student of the fourth year is required to prepare a scheme, with adequate drawings and designs, of some new engineering enterprise, or to complete an original research on some material of construction, the subjects to be submitted for approval to the Professor of Civil Engineering not later than December 1st, and the completed report to be handed in on or before April 1st.

### Engineering Camp.

Besides completing incidental field work during the year, all students in the Civil Engineering course are required to attend the Engineering Camp in their first, second and third years. Students in Mining Engineering are required to attend the Camp in their second year. The nature of the work varies from year to year, and consists in making preliminary and location surveys for a short line of railway, or a hydrographic and topographical survey, or compass and land surveys. Practice is also given in camp and party management, with the handling of parties and the distribution of work. The surveys are made under strict supervision.

The time devoted to the work is ten hours a day for three weeks, while the instrument men are requird, in addition, to plot the work for each day, and record it in the official note books. All work is checked in order to insure accuracy. Each fourth year student is required to keep a complete record of the work and to make drawings of the whole survey.

### II.—MINING AND METALLURGICAL ENGINEERING.

The course in Mining and Metallurgy is designed to cover two distinct though closely related fields, that of the mining engineer, involved in the locating, developing and operating of mining properties, and that of the metallurgist, in the reduction of ores and the treatment of fuels. As a student may be looking forward to work in one or other of these fields, he is allowed to specialize to a limited extent in his final year of study. The first two years of the course are almost the same as the corresponding years in Civil Engineering. The third and fourth years are mainly taken up with technical classes, much attention being given to the mining and metallurgical industries of Nova Scotia.

#### Order of Classes.

The classes of the course arranged in the order in which they are in general to be taken are given in the following schedule. Details of class work will be found under Courses of Instruction.

**First Year.**

| | Hours. | | Hours. |
|---|---|---|---|
| Mathematics 1 | 5 | Elocution (one term) | 2 |
| Chemistry 1 A | 7 | French 1, *or* | 2 |
| Drawing 1 | 16 | German 1 | 3 |
| English 1 | 2 | | |

**Second Year.**

| | Hours. | | Hours. |
|---|---|---|---|
| Mathematics 2 | 5 | Geology 1 (first term) | 10 |
| Physics 1 | 3 | " (second term) | 6 |
| Physics 6 | 5 | French 2, *or* | 2 |
| Chemistry 4 | 7 | German 2 | 3 |
| | | *Engineering Camp.* | |

**Third Year.**

| | Hours. | | Hours. |
|---|---|---|---|
| Physics 2 B | 2 | Surveying 1 | 10 |
| Chemistry 7 | 10 | Metallurgy 1 (one t'm) | 8 |
| Geology 3 | 6 | Metallurgy 2 | 3 |
| Geology 7 | 3 | Mining 1 | 3 |
| Mineralogy 1 | 6 | Mining 4 (Summer Session) | |

**Fourth Year.**

| | Hours. | | Hours. |
|---|---|---|---|
| Physics 7..... | 5 | Metallurgy 4..... | 12 |
| Geology 7..... | 3 | Mining 2..... | 2 |
| Hydraulics 1..... | 2 | Mining 3 (one term)... | 2 |
| Mechanics ..... | 4 | Engineer'g Law (one t'm) | 1 |
| Metallurgy 3..... | 2 | | |

## Summer Work.

Students are required to join the Engineering Camp for field-work in surveying between their second and third years.

During the summer session at the close of the third year all students are required to carry out assigned field-work in structural geology and to visit and study under supervision of instructors typical mining or metallurgical plants. Owing to the proximity of Halifax to the principal mining centres, a student's travelling expenses in carrying out this work are relatively small.

## Thesis.

Fourth year students are required to prepare a thesis upon some mining or metallurgical topic. The object is to acquaint the student with the general methods of scientific research, and to give him a measure of ability in making a detailed practical report upon mines or works in actual operation.

The Thesis will probably fall into one of three classes:

(1) For students wishing to specialize in metal mining, the paper will treat either of some metalliferous mine and its operation, or some problem in ore dressing. If the former, the study will include the structure and economic geology of the locality, the best method of working for that particular deposit, design for mill, if the operations have not begun, or a plan and specifications of the works, if already established. If an ore dressing problem is studied, the thesis will treat of such subjects as the combination of graded crushing, jigging, water classification, table concentration, etc., which will give the best results at the lowest cost on any special ore which may be selected as offering special difficulties.

(2) For students specializing in coal mining the thesis will usually take the form of a detailed report on the operation of some colliery which may be selected as typical of modern practice, or of some coking or coal washing plant.

(3) For students wishing to specialize in metallurgy, the thesis will under ordinary circumstances take the form of a special research in assaying or some metallurgical method, or in metallography. If desired, the student may take up the study of some of the departments of a steel works, such as the operating of a blast furnace, an open hearth furnace, a converter, a rolling mill, etc.

The work of the thesis is in part interwoven with the ordinary classes of the fourth year, and some of the field, laboratory and library work of these classes will bear directly upon it. The beginning of the study will be made during the summer vacation preceding the fourth year, at the close of the regular summer session. Problems connected with the thesis will be discussed in regular conferences, held at stated intervals with the instructors in Mining, Metallurgy and Geology, and occasionally other members of the Faculty.

## B. E. with Distinction.

Candidates for the degree of Bachelor of Engineering, who have shown special excellence in the classes prescribed for their course, including either French or German, will be declared to have obtained the degree With Distinction, or With Great Distinction, according to the standard of excellence they have reached.

## Regulations.

### Matriculation.

Candidates for the degree in Engineering must pass the Junior or Senior Matriculation. For admission to the first year of a course leading to a degree, a candidate must pass in at least three of the five subjects required for Junior Matriculation in Engineering; and he must pass in the remaining subjects before he enters upon the second year of his course. Candidates who take the Senior Matriculation examination, and reach the standard required in this Faculty in Mathematics, Chemistry (including laboratory work), English, and French or German, shall be exempted from these subjects in the first year of their Engineering course. Candidates who pass the Senior Matriculation by certificate are not exempt from Chemistry.

### Attendance and Class-work.

The regulations regarding attendance and classwork are the same as in the Faculty of Arts and Science (p. 39.)

### Order of Classes.

The regulations regarding the order in which classes are to be taken are the same as in the Faculty of Arts and Science (p. 39.)

### Examination and Class Distinction.

The regulations regarding Sessional, Class, Supplementary, and Special Examinations and Class Distinction are the same as in the Faculty of Arts and Science (pp. 40, 41.)

## Prizes and Scholarships.

### Entrance Scholarships.

Sir William Young and Professors' Scholarships.—These scholarships, each of the value of Fifty Dollars, are awarded to qualified students entering one of the courses in Arts, Science or Engineering, leading to a degree. For regulations, see Faculty of Arts and Science, p. 42.

The Mackenzie Bursary.—The Mackenzie Bursary, of the value of Two Hundred Dollars, is open to candidates entering one of the courses in Arts, Science or Engineering. For regulations, see Faculty of Arts and Science, p. 43.

Waverley Prize.—This prize, the interest of an endowment of $1,000, will be awarded annually to the student of the second year who stands highest in Mathematics, 2 and 3.

Cape Breton Alumni Bursary.—The Cape Breton Branch of the Alumni Association offers for competition, annually, to undergraduates from Cape Breton in the third year of the course in Mining Engineering a bursary of the value of Fifty Dollars. The bursary will be awarded to the undergraduate from Cape Breton who stands highest in the subjects of the third year, provided his standing is considered satisfactory by the Faculty.

Mining Society Scholarship.—The Mining Society of Nova Scotia offers for competition, annually to undergraduates in the third year of the course in Mining Engineering, a scholarship of the value of Fifty Dollars. The scholarship will be awarded to the undergraduate who stands highest in the subjects of the third year, provided the standing is considered satisfactory by the Faculty, the winner of the Cape Breton Alumni Bursary being excluded.

## Fees.

*All Fees are payable in advance, and until the Fees are paid the student will neither receive credit for attendance upon any class, nor be admitted to any examination.*

The fees payable each year by students who follow the prescribed courses in Engineering are given in the following schedule. These amounts include the Registration fee and entitle to attendance on all compulsory classes. For non-compulsory classes, as French and German in the Mining course, the usual class fee is required in addition:

*FOR CIVIL ENGINEERING.

| | |
|---|---|
| First Year | $48 00 |
| Second Year | 60 00 |
| Third Year | 55 00 |
| Fourth Year | 55 00 |

*FOR MINING ENGINEERING.

| | |
|---|---|
| First Year | $42 00 |
| Second Year | 45 00 |
| Third Year | 65 00 |
| Fourth Year | 65 00 |

Students of Engineering who do not follow the prescribed courses pay the required Registration fee and the class fees for the classes they select. These fees and those required for the graduation diploma and supplementary and special examinations are as follows:—

FOR REGISTRATION.

| | |
|---|---|
| Registration, payable by students taking only one class | $ 3 00 |
| " " " more than one class | 5 00 |
| " " after September 22nd, additional fee | 1 00 |

FOR TUITION.

| | |
|---|---|
| Railway Economics | $ 3 00 |
| Structures 1 | 8 00 |
| Drawing 1, Metallurgy 4, 5, Structures 2, Surveying 1 and 2 | 12 00 |
| Any other class in Engineering subjects | 6 00 |

FOR EXAMINATIONS.

| | |
|---|---|
| Supplementary examination in one subject | $ 2 00 |
| " " more than two subjects | 5 00 |
| Special examination in one subject | $ 4 00 |
| " " more than two subjects | 10 00 |

FOR CERTIFICATE AND DIPLOMA.

| | |
|---|---|
| Special Certificate of Standing | $ 1 00 |
| B. E. diploma | 5 00 |

For the fees payable for classes in the Faculty of Arts and Science, see Calendar, p. 48.

*All students taking classes involving laboratory work are required to make a deposit of Five Dollars on entering the class. This amount, or if charges for breakage or materials used have been incurred, what remains of it after such charges have been deducted, is returned to the student at the end of the laboratory course.

# COURSES OF INSTRUCTION

## I.—CLASSICS.

(*McLeod Professorship.*)

*Professor*.....HOWARD MURRAY, B. A., LL. D.
*Tutor*.....A. D. FRASER.

### LATIN.

**1.** *Mondays, Wednesdays and Fridays, 11 A. M.—12 M.*

(After Christmas this class will be conducted by the Tutor.)

Cicero, *Orations against Catiline;* Vergil, *Aeneid,* Book VI. *Cicero, *Pro Lege Manilia;* *Vergil, *Aeneid,* Book IV. Latin Prose Composition. Exercises in Sight Translation.

BOOKS RECOMMENDED: Cicero, *Selected Orations and Letters.* (Kelsey's, Allyn & Bacon, Boston, $1.25). Vergil, *Aeneid,* Book VI. (Page's Macmillan, Toronto, 35 cents). Vergil, *Aeneid,* Book IV. (Stephenson's Macmillan, Toronto, 35 cents). Bradley's Arnold's *Latin Prose Composition,* (Longmans, London, 5s.). Allen & Greenough's *New Latin Grammar,* (Ginn & Co., Boston, $1.20), or Bennett's *Latin Grammar,* (Allyn & Bacon, 80 cents).

**2.** *Mondays, Wednesdays and Fridays, 10—11 A. M.*

Livy, Book I; Horace, *Odes,* Books I and II; *Horace, *Odes,* Books III and IV, and *Epodes.* Latin Prose Composition. Exercises in Sight Translation.

BOOKS RECOMMENDED: Livy, Book I. (Rolfe's [text with indicated quantities] Allyn & Bacon, Boston, 25 cents). Horace, *Odes and Epodes,* (Gow's, Cambridge University Press, 5s.). Bradley's Arnold's *Latin Prose Composition.*

**3.** *Mondays and Wednesdays, 12 M.—1 P. M.*

Tacitus, *Histories,* Book I; Horace, *Selected Satires;* *Tacitus, *Annals,* Book XIV; *Cicero, *De Officiis,* Book *III.* Latin Prose Composition. Exercises in Sight Translation.

BOOKS RECOMMENDED: Tacitus, *Histories,* Books I and II, (Godley's Macmillan, Toronto, 90 cents). Horace, *Satires and Epistles,* (Rolfe's, Allyn & Bacon, Boston, $1.40). Tacitus *Annals,* Books XIII-XVI (Pitman's, Oxford University Press, 4s. 6d.). Cicero, *De Officiis,* Book III, (Holden's, Cambridge University Press, 2s.).

**4.** [*1909-10.*] *Mondays and Wednesdays, 12 M.—1 P. M.*

Plautus, *Trinummus;* Juvenal, *Satires,* III, V, X, XIII; Tacitus, *Germania.* *Tacitus, *Annals,* Book IV. *Lucretius, Book III. Latin Prose Composition. Exercises in Sight Translation.

### GREEK.

**1.** *Tuesdays and Thursdays, 10—11 A.M.; Fridays, 12 M—1 P.M.*

(Conducted by the Tutor.)

Xenophon, *Hellenica,* Books I and II; *Xenophon, *Agesilaus.* Greek Prose Composition. Exercises in Sight Translation.

*For private reading by students seeking First or Second Class Distinction Passages for translation at sight will be set in all examinations.

BOOKS RECOMMENDED: Xenophon, *Hellenica*, Books I and II, (Underhill's, Oxford University Press, 3s.). Xenophon, *Agesilaus*, (Hailstone's, Cambridge University Press, 2s. 6d.). Fletcher & Nicholson's *Greek Prose Composition*, (Copp, Clark Co., Toronto, $1.25). Goodwin's *Greek Grammar*, (Ginn & Co., Boston, $1.50).

**2.** *Tuesdays and Thursdays, 11 A. M.—12 M.*

Lucian, *Selected Dialogues;* Homer, *Odyssey*, Book IX; *Lucian, *Timon* (as in Inge & Macnaghten's edition). *Homer, *Odyssey*, Book XII. Greek Prose Composition. Exercises in Sight Translation.

BOOKS RECOMMENDED: Lucian, *Selections*, (Inge & Macnaghten's, Longman's, 3s. 6d.). Homer, *Odyssey*, Book IX, (Edwards', Cambridge University Press, 2s. 6d.). *Odyssey*, Book XII, (von Minckwitz's, Ginn & Co., Boston, 40 cents.) Fletcher & Nicholson's *Greek Prose Composition.*

**3.** *Tuesdays and Thursdays, 12 M.—1 P. M.*

Demosthenes, *Philippics*, I-III; Euripides, *Medea;* *Demosthenes, *Olynthiacs;* *Euripides, *Alcestis*. Greek Prose Composition. Exercises in Sight Translation.

BOOKS RECOMMENDED: Demosthenes, *Philippics*, (Abbott & Mathesons', Oxford University Press, 2s. 6d.) Euripides, *Medea*, (Verrall's, in Macmillan's Classical Series, 60 cents). Demosthenes, *Olynthiacs*, (Sharpley's, Blackwood, 1s. 6d.). Euripides, *Alcestis*, (Blakeney's, Bell & Sons, 2s.)

**4.** [*1909-10*] *Tuesdays and Thursdays, 12 M.—1 P. M.*

Plato, *Apology* and *Crito;* Aristophanes, *The Clouds*. *Homer, *Iliad*, Books I, II (1-493) and VI. Greek Prose Composition. Exercises in Sight Translation.

### ADVANCED CLASSES.

*Professor*.....HOWARD MURRAY, B. A., LL. D.

*Lecturers*.....J. W. LOGAN, B. A.; G. K. BUTLER, M. A.

**5** and **6.** LATIN.—Plautus, *Captivi*, *Miles Gloriosus*. Terence, *Adelphi*, *Phormio*. Vergil, *Georgics* I, IV. Horace, *Epistles* I, II, *Ars Poetica*. Juvenal, *Satires* I, VII, VIII, XIV. Cicero, *De Oratore* I, *Philippics* I, II, *Pro Cluentio*. Livy, XXI, XXII. Tacitus, *Annals* I, II, *Agricola*. Pliny, *Letters*, Books I-III.

**5** and **6.** GREEK.—Aeschylus, *Eumenides*, *Prometheus Vinctus*, Sophocles, *Antigone*, *Electra*, (after 1909, *Oedipus Coloneus*, *Philoctetes*), Aristophanes, *Frogs*, *Knights;* Homer, *Odyssey*, V—VIII. Thucydides, II, III. Plato, *Republic*, I-IV. Demosthenes, *De Corona*. Aristotle, *Poetics*.

### BEGINNERS' CLASS IN GREEK.

*Three or four times a week.*

This class, which is conducted by the Tutor, is intended for beginners in the language, and also for those who have come to college without sufficient preparation in the elements of Greek accidence and syntax to enable them to attend with profit the first undergraduate class. The book used in the first part of the session will be White's *First Greek Book;* afterwards Goodwin's *Greek Grammar* will be taken up, and a book of Xenophon's

*Anabasis* will be read. Occasional examinations will be given, and those who satisfy the instructor in these examinations may have their work in this class counted as exempting them from the Junior Matriculation in Greek. The fee for this class, when taken with another Greek class, is three dollars; when taken alone, is six dollars.

### II.—NEW TESTAMENT GREEK.

*Tuesdays, Wednesdays, Fridays and Saturdays. 12.30 P. M.*

The class and examinations in New Testament Greek, conducted by Professor J. W. FALCONER, M. A., B. D., in the Presbyterian Theological College, Halifax, are recognized as qualifying for a degree. Similar classes in other Theological Colleges approved by the Faculty, are also recognized for the same purpose.

The work of the class consists of the interpretation of the Gospels. Lectures are also given on the language of the New Testament, the principles of Textual Criticism, Introduction to the Gospels, and problems arising out of the Gospel narratives.

TEXT BOOKS: Westcott and Hort's or the new Bible Society's edition of the *New Testament in Greek.* Huck, *Synopse der drei ersten Evangelien;* J. H. Moulton, *Introduction to N. T. Greek;* Hammond or Lake, *Textual Criticism of the New Testament;* Mathew, *A History of the New Testament Times in Palestine.*

BOOKS RECOMMENDED: F. Blass, *Grammar of N. T. Greek;* Burton, *New Testament Moods and Tenses;* Nestle's or Kenyon's *Textual Criticism of the Greek N. T.*

### III.—HEBREW.

*Daily 8.45 to 9.30 A. M.*

The class and examinations in Hebrew, conducted by Professor JOHN CURRIE, D. D., in the Halifax Theological College are recognized as qualifying for a degree. Similar classes in other Theological Colleges approved by the Faculty, are also recognized for the same purpose.

The aim of the course is, by a thorough drill in paradigms, and by exercises in reading and writing, to impart a fair knowledge of inflection and syntax, and the ability to read at sight easy parts of the Hebrew Scriptures.

TEXT BOOK: Davidson's *Introductory Hebrew Grammar,* with Progressive Exercises in Reading and Writing, (T. & T. Clark, Edinburgh, 7s. 6d.)

BOOKS RECOMMENDED: Gesenius' *Hebrew Grammar,* revised edition, (Mitchell, Bradley & Woodruff, Boston, $3). Green's *Hebrew Grammar,* new edition, unabridged (Wiley and Sons, New York, $3). Harper's *Introductory Hebrew Method and Manual,* latest edition, (American Publication Society of Hebrew, Chicago). Robinson's Gesenius' *Hebrew Lexicon,* (Houghton, Mifflin & Co., Boston, $6).

### IV.—MODERN LANGUAGES.

(*McLeod Professorship.*)

*Professor*.....HOWARD P. JONES, Ph. D.

#### FRENCH.

1. *Tuesdays and Thursdays. 3—4 P. M.*

Super, *French Reader* (D. C. Heath & Co.); Fraser and Squair, *Abridged French Grammar* (D. C. Heath & Co.). Composition and exercises in Sight Translation. Additional for Distinction: Pierre Coeur, *L'Ame de Beethoven.*

**2.** *Tuesdays and Thursdays, 2—3 P. M.*

About, *Le roi des Montagnes* (Macmillan & Co.); Lamartine, *Scènes de la Revolution Francaise* (D. C. Heath & Co.); Bazin, *Contes Choisis* (D. C. Heath & Co.). Exercises in Grammar, Composition and Sight Translation. Additional for Distinction: Theuriet, *L'Abbe Daniel* (Macmillan & Co.); Labiche et Martin, *Le Voyage de Monsieur Perrichon* (American Book Co.).

**3.** [*1910-11*] *Tuesdays and Thursdays, 9—10 A. M.*

Delavigne, *Louis XI;* Warren, *French Prose of the XVIIth Century;* Boileau, *L'Art poetique.* French Prose Composition, Conversation, Dictation. History of French Literature with special reference to the 17th century. Additional for Distinction: Horace, *L'Art poetique;* Buffon, *Discours sur le Style;* Fénelon, *Lettre a l'Academie;* Butcher, *Aristotle's Poetics* (selected chapters of the commentary).

**4.** *Tuesdays and Thursdays, 9—10 A. M.*

De Vigny, *Cinq-Mars* (Macmillan & Co.); Bazin, *Les Oberlé* (Holt & Co.); Sainte-Beuve, *Causeries du Lundi* (selections). French Prose Composition, Conversation, Dictation. History of French Literature with special reference to the Romantic School.

Additional for Distinction: Victor Hugo, *Selections in Prose and Verse* (Holt & Co.), *Hernani.*

**5.** [*1909-10*] *Tuesdays and Thursdays, 9—10 A. M.*

Corneille, *Le Cid;* Sandeau, *Sacs et Parchemins;* Mme. de Sévigné, *Lettres Choisies.* French Prose Composition, Conversation, Dictation. History of French Literature, with special reference to the post-romantic period.

Additional for Distinction: Balzac, *Eugénie Grandet;* Racine, *Athalie or Andromaque.*

GERMAN.

**1.** *Mondays, Wednesdays and Fridays, 3—4 P. M.*

Harris, *German Lessons* (D. C. Heath & Co.); Jones, *A German Reader* (D. Appleton & Co.) Exercises in Grammar and Composition.

Additional for Distinction: Zschokke, *Der zerbrochene Krug,* (D. C. Heath & Co.); von Hillern, *Hoher als die Kirche,* (D. C. Heath & Co.).

**2.** *Mondays, Wednesdays and Fridays, 2—3 P. M.*

Schiller, *Wilhelm Tell;* von Sybel, *Die Erhebung Europas unter Napoleon* (Ginn & Co.). German Syntax (von Jagemann). Prose Composition (Harris). Exercises in Sight Translation.

Additional for Distinction: Zastrow, *Wilhelm der Siegreiche,* (Macmillan & Co.); Schiller, *Die Jungfrau von Orleans* (Acts I, II and III).

**3.** *Mondays, Wednesdays and Fridays, 9—10 A. M.*

Goethe, *Hermann und Dorothea;* Heine, *Prose Selections;* Schiller, *Wallensteins Tod.* German Prose Composition, Conversation, Dictation. History of German Literature (selected period).

Additional for Distinction: Hauff, *Lichtenstein;* Fulda, *Der Talisman.*

**4.** [*1909-10*] ***Mondays, Wednesdays and Fridays, 9—10 A. M.***

Freytag, *Die Journalisten;* Helmholtz, *Populaere Vortraege;* Goethe, *Sesenheim.* German Prose Composition, Conversation, Dictation. History of German Literature (selected period).

Additional for Distinction: Dahn, *Ein Kampf um Rom;* Schiller, *Maria Stuart.*

**5.** [*1910-11*] ***Mondays, Wednesdays and Fridays, 9—10 A. M.***

Lessing, *Minna von Barnhelm;* Sudermann, *Frau Sorge;* Goethe, *Iphigenie.* German Prose Composition, Conversation, Dictation. History of German Literature (selected period).

Additional for Distinction: Elster, *Zwischen den Schlachten;* Schiller, *Die Braut von Messina.*

## V.—BIBLICAL LITERATURE.

*Lecturer*.....REV. W. M. FRASER, B. A., B.Sc.

***Mondays and Wednesdays.***

There are three courses in the Old Testament, and two in the New Testament. The work of any one session will be accepted as an elective in the third or fourth year of the Arts course.

### OLD TESTAMENT.

*First Course.* The Historical Books of the Old Testament as a basis for the history of Israel from its origin till the rise of written Prophecy.

*Second Course.* Written Prophecy.

*Third Course.* The Poetry and Wisdom Literature of the Hebrews.

### NEW TESTAMENT.

*First Course.* The four gospels—their origin, literary characteristics and contents.

*Second Course.* The Literature of the apostolic age exclusive of the gospels.

TEXT BOOKS: *The Message of the Bible;* Ottley, *History of the Hebrews;* Kirkpatrick, *The Doctrine of the Prophets;* Weymouth, *The New Testament in Modern Speech;* Burton and Mathews, *Constructive Studies in the Life of Christ.*

FOR DISTINCTION: Books prescribed during the session.

FOR READING: McCurdy, *History, Prophecy and the Monuments;* Robertson Smith, *The Prophets of Israel;* Moulton, *The Literary Study of the Bible;* relevant articles in Hastings' *Dictionary of the Bible;* McFadyen, *Introduction to the Old Testament.*

## VI.—KELTIC.

*Lecturer*.....REV. A. MACLEAN SINCLAIR.

*Junior division meets Mondays, Wednesdays and Thursdays, 2—3 p. m. Senior division meets Mondays, Wednesdays and Fridays, 5—6 p. m. Lecture on History and Literature, Thursdays, 5—6 p. m.*

This course begins after the Christmas holidays and continues throughout the remainder of the session. There are two divisions

—a Junior Class in Gaelic and a Senior Class in Gaelic. A lecture on the History and Literature of the Kelts is given once a week. It is open to members of both divisions of the class and to any one interested in the subject. Any student who has attended for two sessions and passed the examinations may offer Keltic as one of the electives of the third or fourth year.

In the Junior division the books used are *An Treoraiche; Filedd na Coille.* In the Senior division they are Macintyre's *Poems,* Alexander Macdonald's *Poems,* Macleod's *Caraid nan Gaidheal, Laodih Oisin air Thir nan og,* Stewart's *Gaelic Grammar,* Joyce's *Grammar of the Irish Language,* McLeod's *Gaelic Dictionary,* Dinneen's *Irish-English Dictionary.*

## VII.—ENGLISH LANGUAGE AND LITERATURE.

(*George Munro, Professorship.*)

*Professor*.....ARCHIBALD MACMECHAN, PH. D.

The course in English is mainly literary; the method pursued is historical. The different periods are studied in the representative works of the period; and in all cases actual acquaintance with the texts precedes criticism upon them. This part of the course is intended to furnish the student with an outline picture of English literature from Chaucer to Tennyson. The work for Class Distinction is meant to broaden the knowledge of more ambitious students. The essential facts of Historical English Grammar are taught by means of lectures in the Second Year. Special stress is laid upon composition. Practice is set before theory; the various exercises are corrected and preserved; the writing of "reports" forms part of this work. *The prompt and satisfactory performance of the written work is a condition of examination.* In the Advanced Classes the aim of the instruction is to acquaint the student with the grammar of Old and Middle English, and to broaden his knowledge of Elizabethan literature.

**1.** (*A*) *Tuesdays and Thursdays, 12—1 P. M.*

COMPOSITION.—Christmas Term; imitative exercises in the construction of narrative and descriptive paragraphs. Spring term; ten narrative and descriptive themes based on personal experience, and work read in class.

LITERATURE.—Eighteenth Century Prose. Addison, *Papers Contributed to "The Spectator."* Swift, *"Voyage to Lilliput."* Johnson, *Life of Pope.* (Macaulay, *Samuel Johnson*). Poetry. Dryden, *Mac Flecknoe, St. Cecilia's Day, Alexander's Feast.* Pope, *Rape of the Lock.* Gray, *Elegy in a Country Churchyard;* Goldsmith, *Traveller, Deserted Village;* Burns, *Twa Dogs, Cotter's Saturday Night.*

For reference: Gosse, *History of Eighteenth Century Literature.*

Candidates for Class Distinction will be examined in these additional works which are not read in class. Dryden, *Absalom and Achitophel;* Pope, *Essay on Man;* Johnson, *Lives of Dryden, Addison and Gray.*

Two reports on private reading, assigned by the instructor, are required from each student.

BOOKS RECOMMENDED: Hale, *Longer English Poems* (containing all the poetry read in class); Addison ed. T. Arnold; Clarendon Press Series; Johnson, *Six Chief Lives*; ed. M. Arnold.

PARALLEL READING.—As a preparation for the course, the student is recommended to read the following works: Thackeray, *English Humorists, Congreve and Addison, The History of Henry Esmond* (bk. ii, cap xi, at least); Macaulay, *The Comic Dramatists of the Restoration, Addison.*

**2.** (*B*). *Mondays, Wednesdays and Fridays, 12—1 P. M.*

COMPOSITION.—Lectures on the Principles of Narration, Description and Exposition. Twenty Expository themes, based chiefly upon the work read in class.

LITERATURE.—Elizabethan. Shakespere, *Henry V, As You Like It, Coriolanus;* Milton, *L'Allegro, Il Penseroso, Lycidas, Comus, Sonnets, Paradise Lost,* Bks. i, ii. Lectures.

ENGLISH LANGUAGE.—A short course of Lectures on the History of the English Language, at the end of the Spring Term.

For reference: Sidney Lee, *A Life of William Shakspeare;* Dowden, *Shakspere Primer;* Saintsbury, *History of the Elizabethan Literature.*

A report on private reading assigned by the instructor, is required from each student. Candidates for Distinction are required to present a second report.

Candidates for Class Distinction will be examined in the following plays which are not read in class:—*Richard III, The Tempest, Hamlet.*

PARALLEL READING.—As a preparation for this course, the student is recommended to read the following works: Kingsley, *Westward Ho!* Scott, *Kenilworth.* Hentzner, *Travels in England.* Harrison, *Description of England.* (*Scott Library*). Macaulay, *Milton.*

**3.** (*C*). *Tuesdays and Thursdays, 10—11 A. M.*

LITERATURE.—Middle English and Pre-Shakesperean. Chaucer, *Prologue, Knight's Tale, Squire's Tale* (edited by A. W. Pollard). Sweet, *Middle English Primer II.* Spenser, *Faerie Queene,* bks. i, ii. Marlowe, *Dr. Faustus.* Lectures.

History of Literature. Pollard, *Chaucer Primer.* For reference: Lounsbury, Ten Brink. Morley, *English Writers, V.*

For Distinction: Chaucer, *The Prioress's Tale, Sir Topas, The Monk's Tale.* The whole volume of Skeat, with the exception of "The Squire's Tale."

Composition. Eight expository themes on the work of the class.

**4** (*D*). *Tuesdays and Thursdays, 4—5 P. M.*

LITERATURE.—Nineteenth Century. Lectures; the historical and social back-ground, the influence of the French Revolution, the predecessors of Wordsworth, Cowper, Crabbe, Blake, Burns, Chatterton. Scott, *Old Mortality, Marmion.* Byron, *Poems,* edited by Matthew Arnold. Wordsworth, *Poems,* edited by Dow-

den. Coleridge, *The Rime of the Ancient Mariner, Christabel, Kubla Khan.* Shelley, *Alastor, The Sensitive Plant, Adonais, The Cloud, The Skylark, Ode to Liberty.* Keats, *Sleep and Poetry, Odes, Sonnets, Hyperion, Eve of St. Agnes, La Belle Dame Sans Merci.*

Composition. Eight expository themes on subjects of the course.

History of Literature. Saintsbury, *History of Nineteenth Century Literature.* Herford, *Age of Wordsworth.* Oliphant, *Literary History of England.*

For Distinction. A thesis on a subject assigned by the instructor.

This subject may be assigned at the end of the previous session and completed during the summer vacation. It should in any case be selected at the beginning of the session in which the student intends to present it, and must embody the results of an original literary investigation. The following are the titles of representative theses which have been accepted: *Chatterton,, A Study in Style; The Relation of "Tristram Shandy" to "Anatomy of Melancholy;" Tennyson's Treatment of Colour in "The Idylls of the King;" "Alastor," edited with Introduction and Notes.* The Thesis must be written on special thesis paper and bound. A copy must be deposited in the College Library.

**5.** *(E). Tuesdays and Thursdays, 4—5 P. M.*

*(Not given in 1908-09).*

LITERATURE.—Nineteenth century. Tennyson, *The Lady of Shalott, Œnone, Lotus-Eaters, Dream of Fair Women, Morte Darthur, Dora, Sir Galahad, Lord of Burleigh, Ulysses, The Revenge, Rizpah.* Poems of Tennyson, ed. MacMechan, (*Belles Lettres* series). Browning, Selections from *Men and Women,* (Dent's one vol. ed.), *Andrea del Sarto, Epistle of Karshish, Memorabilia, Evelyn Hope, A Toccata of Galuppi's, The Statue and the Bust, In a Balcony, The Last Ride Together.* Arnold, *Sohrab and Rustum, The Sick King in Bokhara, The Strayed Reveller, Rugby Chapel, Heine's Grave, Stanzas from the Grand Chartreuse.* Dickens, *David Copperfield.* Thackeray, *Vanity Fair.* Ruskin, *Sesame and Lilies.* Carlyle, *Sartor Resartus*: ed MacMechan, (*Athenaeum Press* Series).

Composition: Eight expository themes on subjects of the course.

History of Literature. Saintsbury, *History of Nineteenth Century Literature.* Walker, *The Age of Tennyson.*

For Distinction, as in English 4 (D).

**6.** *(F). Mondays and Fridays, 9 A. M.*

*(Not given in 1908-09).*

OLD ENGLISH.—Bright, *Anglo-Saxon Reader. Sievers,* O. E. Grammar, trans. Cook. Sight translation from easy texts.

**7.** *(G). (Twice a week).*

ELIZABETHAN DRAMA. Marlowe, *Tamburlaine, Edward II, The Jew of Malta.* Greene, *Friar Bacon and Friar Bungay.* Jonson, *The Alchemist, Every Man in His Humour.* Beaumont and Fletcher, *Philaster, The Knight of the Burning Pestle.* Mas-

singer, *A New Way to Pay Old Debts.* Webster, *The Duchess of Malfi.* Shakspeare, the Tragedies, *Two Noble Kinsmen.*

This course is conducted as a Seminary.

### ELOCUTION.

*Lecturer*.....REV. JAMES CARRUTHERS.

This course begins early in January and continues for about three months. It is required of all students taking English 1; but students who do not take English 1 will be required to take Elocution as part of English 2. Students are required to pass in Elocution, and credit will be given for it in the determination of their standing in English. The fee for the course is three dollars.

The subjects treated are:

1. *Vocal Training*—Elements, Breathing, Natural use of Voice, Faults of the Voice, Principles of Training, Vocal instruments and their use, Voice Production.

2. *Phonology*—Vowels, their formation; Articulation, (consonants), Elements of Speech, Development of organs of Articulation, Common faults, Pronunciation, Training of the ear, Vocal quantity.

3. *Vocal Expression*—Elements, Principles of Inflection, Modulation, Emphasis, Verbal Grouping, Pausing, Expressive Reading.

TEXT BOOK: Southwick, *Elocution and Action.*

## VIII.—HISTORY AND POLITICAL ECONOMY.

*(George Munro Professorship).*

*Professor*.....PRESIDENT FORREST.

### HISTORY.

**1.** *Mondays, Wednesdays and Fridays, 10—11 A. M.*

Mediæval History and Modern History to 1555.

The class work will be conducted by means of lectures and examinations on prescribed reading. A detailed syllabus, with references and passages prescribed for reading, will be given to students on the opening of the class.

Candidates for First Class Distinction will be examined on Hallam's Middle Ages, Bryce's Holy Roman Empire, and introductory sections of Robertson's Charles V.

BOOKS RECOMMENDED: Gibbon, *Decline and Fall of the Roman Empire;* Hallam, *Middle Ages;* Bryce, *Holy Roman Empire;* Irving, *Mahomet and his Successors;* Guizot, *History of Civilization;* Michaud, *History of the Crusades;* Robertson, *Charles V.;* Stubbs, *Constitutional History of England;* Labberton, *Historical Atlas.*

**2.** *Tuesdays and Thursdays, 10—11 A. M.*

**Modern History from 1555.**

The class work will be conducted by means of lectures and examinations on prescribed reading. In the lectures, books of reference will be named and selected portions specified for reading.

Disputed points will be marked out for special study and students required to examine authorities and weigh conflicting opinions, and thus learn to study history critically for themselves.

Candidates for Distinction will be examined in Green and Guizot, and a few chapters to be specified in other works.

BOOKS RECOMMENDED: Green, *England, Vol. IV.*; Guizot, *France, Masson's Abridgment)*; Menzel, *Germany*; Morley, *Dutch Republic*; Bancroft, *United States*; McMaster, *History of the People of the United States*; Parkman, *France and England in North America*; Labberton, *Historical Atlas.*

**3.** *Once a week.*

**English History from 1603 to 1688.**

The work of the class will be conducted by means of lectures and examinations on reading prescribed from Clarendon, Gardiner, Green, Hallam, Ranke, Lingard, and other authorities.

This class is intended especially for undergraduates taking the Honour course in English and English History.

## POLITICAL ECONOMY.

**1.** *Tuesdays and Thursdays, 11—12 A. M.*

The work of the class will be conducted by means of lectures and examinations on prescribed reading.

The lectures will generally follow the order of arrangement of Mill's Principles of Political Economy. 1—THE NATURE OF WEALTH: Analysis of fundamental conceptions of Wealth, &c. 2—PRODUCTION OF WEALTH: Labor, Capital, Population, and their relations to each other. 3—DISTRIBUTION OF WEALTH: Wages, Profits, Rent, Socialism, Labor Unions, Land Tenure. 4—EXCHANGE: Value, Money, Banking. 5—RELATIONS OF GOVERNMENT TO TRADE AND INDUSTRY: Tariffs, Taxation.

Particular attention will be given to the problems of the day: Protection and Free Trade, Trade Unions, Combines, Bimetallism. Each student is required to read the whole of Mill's *Principles*, together with prescribed passages from leading economists and current literature on the subjects. Weekly examinations will be held on the prescribed reading.

Candidates for Distinction will be examined on additional work, which will be announced at the beginning of the session.

TEXT BOOK: Mill, *Principles of Political Economy*; Gide, *Political Economy.*

**2.** *Twice a week.*

The work of this class will consist of lectures, entering into the Principles of Political Economy more fully than in the ordinary class, with examinations on reading prescribed in the works of the leading writers on the subject.

## IX.—CONSTITUTIONAL HISTORY AND LAW.

The classes in Constitutional Law and Constitutional History, conducted by Professor Weldon in the Faculty of Law, and the examinations conducted in these subjects by the Faculty of Law, are recognized as qualifying for a degree, provided students taking the Class in Constitutional History as an elective in Arts have also passed an examination in Bagehot's *English Constitution*, or in other prescribed work. Students taking the affiliated course in Arts and Law are exempted from this provision.

## X.—CONTRACTS.

The class in Contracts, conducted by Professor Russell in the Faculty of Law, and the examinations conducted in this subject by the Faculty of Law, are recognized as qualifying for a degree.

## XI.—PHILOSOPHY.

*(George Munro Professorship).*

*Professor*.....WALTER C. MURRAY, M. A., LL. D.
*Lecturer*..... PRINCIPAL ROBERT MAGILL, PH. D.

**1.** LOGIC AND PSYCHOLOGY. *Mondays, 4—5 P. M., Tuesdays and Thursdays, 12—1 P. M.*

The work of this class will consist of two courses of lectures, one on Logic, and one on Psychology, with essays, discussions, and oral examinations.

TEXT BOOKS: Creighton, *Introductory Logic;* Angell, *Psychology.*

**2.** ADVANCED LOGIC. *Tuesdays and Thursdays, 11—12 A. M.*

For 1908-9. This course of lectures will be devoted to the study of Bosanquet's *Logic.*

BOOKS RECOMMENDED: Lotze, *Logic;* Sigwart, *Logic;* Bradley, *Principles of Logic.*

**3.** MODERN PHILOSOPHY. *Mondays and Wednesdays, 10—11 A.M.*

For 1908-9. After a preliminary sketch of the principal problems of Metaphysics, the development of Modern Philosophy from Descartes will be studied in Descartes' *Method and Meditations*, Locke's *Essay*, Berkeley's *Principles of Knowledge*, and *Siris*, Hume's *Enquiry*, Reid's *Inquiry*, Kant's *Prolegomena*, and Watson's Extracts from Mill's Writings.

BOOKS: Seth (A), *Scottish Philosophy;* Berkeley, *Selections* by Fraser; Blackwood's Philosophical Classics; Hoffding's or Falckenberg's or Weber's *History of Philosophy;* Open Court Editions of *Berkeley, Hume* and *Kant.*

**4.** GREEK PHILOSOPHY. *Mondays and Fridays, 3—4 P. M.*

For 1908-9. In this course an introductory sketch of the development of Greek Philosophy from Thales is followed by a critical study of Plato's *Apology, Crito, Phaedo, Republic*, and *Theaetetus;* and Aristotle's *Ethics (Muirhead's Edition).*

BOOKS RECOMMENDED: Church's *Apology, Crito and Phædo* (Golden Treasury Series); Davies and Vaughan's *Republic*, (G. T. S.); *Dyde's Theæetetus;* Burnet, *Early Greek Philosophy;* Nettleship, *Philosophical Lectures and Remains;* Jowett, *Plato's Dialogues;* Wallace, *Epicureanism;* Caird, *Evolution of Greek Theology.*

**5.** METAPHYSICS. *Mondays and Wednesdays, 10—11 A. M.*

For 1909-10. This course of lectures is intended to serve as an introduction to Metaphysics. Taylor's *Elements of Metaphysics* will be the text-book.

BOOKS RECOMMENDED: Watson, *Outline of Philosophy;* Paulsen, *Introduction to Philosophy;* Balfour, *Foundations of Belief;* Ward, *Naturalism and Agnosticism.*

**6.** ETHICS. *Mondays and Fridays, 3—4 P. M.*

For 1909-10. This course of lectures attempts a systematic presentation of the Principles of Moral Philosophy.

BOOKS RECOMMENDED: Seth, *Ethical Principles;* Green, *Prolegomena to Ethics;* Dewey, *Outline of Ethics;* Mill, *Utilitarianism;* Spencer, *Data of Ethics;* Paulsen, *Ethics;* Wundt, *Ethics;* Hobhouse, *Evolution of Morals;* Westermarck, *Development of Moral Ideas;* Jenks, *Politics.*

**7.** KANT. *Tuesdays and Thursdays, 11—12 A. M.*

For 1909-10. The subject of this course is Kant's Philosophy. The *Prolegomena, Critiques of Pure Reason, of Practical Reason,* and *of Judgment,* will be studied.

TRANSLATIONS RECOMMENDED: Watson's *Selections;* Mahaffy and Bernard, *Prolegomena;* Max Muller, *Critique of Pure Reason;* Abbott, *Theory of Ethics;* Bernard, *Critique of Judgment;* Kant, *Prolegomena* (Open Court Edition).

COMMENTARIES AND EXPOSITIONS RECOMMENDED: Stirling, *Text-book to Kant;* Wallace, *Kant;* Fischer, *Kant;* Caird, *Critical Philosophy;* Watson, *Kant and his English Critics,* and *An Outline of Philosophy;* Mahaffy and Bernard, *Kritik of Pure Reason Defended and Explained;* Green, *Philosophical Works, Vol. II;* Paulsen, *Kant.*

**8.** SOCIOLOGY. *Tuesdays and Thursdays, 3—4 P. M.*

This course is a continuation of that given in 1907-08. It will be given by Principal Magill, Ph. D., of the Presbyterian Theological College. The object of the course will be to study the social questions of the present age.

## XII.—EDUCATION.

*Lecturers*..... { PROFESSOR WALTER MURRAY, SUPERVISOR A. MCKAY.

Education 1 and 2 are supplementary. In each there will be concurrent courses in History and Theory, and together they will provide fairly comprehensive courses in history of Education in Greece, Rome and Britain, and courses in Educational psychology and theory. Education 3 is chiefly practical.

**1.** *Two hours a week.*

In 1908-09 the historical course will be devoted to Greek and Roman Education. For this Munroe's *Source Book of the History of Eduation* is the most comprehensive text book, though Bosanquet's *Plato* and Burnet's *Aristotle* are sufficient for the Greek period. The theoretical course will be principally psychological. James' *Talks to Teachers,* Hall's *Youth* and King's *Child Development* or a similar book will be studied. Candidates for distinction will be examined on Fitch's *Lectures,* Tucker's *Life in Athens* and another book to be announced during the session.

**2.** *Two hours a week.*

In 1909-10. The History of Education since the Renaissance, more particularly in Britain, will be studied. Laurie's *Educational Opinion Since the Renaissance* should prove a sufficient guide to the student seeking a pass, but an acquaintance with the writings of Eliot, Ascham, Milton, Locke, Mill and Spencer will be required of candidates for distinction. For the theoretical course, Bagley's *Educative Process* and *Classroom Management* will be the textbooks. Laurie's *Language and Linguistic Method* and a book on special methods will also be required of candidates for distinction.

**3.** This Class consists of a course in Practice of Teaching, School Management and School Law.

PRACTICE OF TEACHING.—At least 75 hours must be spent in observation, discussion, and actual practice in good Schools under supervision.—SUPERVISOR A. MCKAY.

SCHOOL MANAGEMENT AND SCHOOL LAW.—A course of lectures will be given on School Management and the School Law of Nova Scotia.

## XIII.—MATHEMATICS.

*Professor*.....MURRAY MACNEILL, M. A.

*Mathematics 1* is prescribed for regular first year students in Arts and Science. *Mathematics 2* is elective for students who have taken Mathematics 1; *Mathematics 3* is elective for students who have taken Mathematics 2. Each of the *Advanced Classes* is elective for any student who has passed in Mathematics 2 and 3.

**1.** *Monday, Wednesday and Friday, 10—11 A. M., Tuesday and Thursday, 9—10 A. M.*

The work of this class includes:

ALGEBRA:—Indices, Theory of Quadratic Equations, Irrational Quantities, Quantities involving $\sqrt{-1}$. Proportion, Progressions, Permutations, and Combinations, Binomial Theorem, revised. Properties of Logarithms. Interest and Annuities. Elementary discussions on Functions, Limits, and Series. Selected propositions in the Theory of Equations, Graphical representations of Functions, and plotting of Loci of Equations.

Indeterminate coefficients. Partial Fractions. Probability, Exponential and Logarithmic Series.

GEOMETRY.—Euclid, Book VI revised, and Book IX. Theorem and Problems, with drawing exercises on Harmonic Ranges and Pencils, Poles and Polars, and Transversals. Geometry and Mensuration of the Sphere, Prism, Pyramid, Cylinder and Cone. Elementary propositions in the geometrical treatment of the Parabola and Ellipse.

TRIGONOMETRY.—The solution of plane and spherical triangles. Measurement of heights and distances. Elementary angular analysis.

BOOKS RECOMMENDED: Hall and Knight, *Higher Algebra* (Macmillan & Co.); Wilson, *Solid Geometry and Conic Sections* (Macmillan & Co.); Murray, *Plane Trigonometry and Tables* (Longmans, Green & Co.); Murray, *Spherical Trigonometry* (Longmans, Green & Co.)

**2.** *Monday, Wednesday and Friday, 9—10 A. M., Tuesdays and Thursdays, 10—11 A. M.* Autumn Term.

An elementary course in ANALYTIC GEOMETRY.

BOOKS RECOMMENDED: Tanner and Allen, *Analytic Geometry*, (American Book Co.)

**3.** *Monday, Wednesday and Friday, 9—10 A. M., Tuesday and Thursday, 10—11 A. M.* Spring Term.

An elementary course in INFINITESIMAL CALCULUS.

BOOKS RECOMMENDED: Murray, *Infinitesimal Calculus* (Longmans, Green & Co.)

ADVANCED CLASSES.

The courses in these classes are intended for those who wish to take mathematical work in the third or the fourth year in the ordinary course in Arts or Science. They are also intended to serve as courses introductory to the study of higher mathematics, for those who may afterwards attend the graduate schools in the larger universities. Candidates for Honours in Pure and Applied Mathematics are required to take four of these courses in class.

Two of these courses will be given during each year. Each class meets two hours weekly throughout the year. The particular classes organized will depend on the students making application for them.

**4.** ADVANCED CALCULUS.—Topics in the treatises of Todhunter, Williamson, Harnack, Lamb, and Gibson.

**5.** PLANE AND SOLID ANALYTICAL GEOMETRY.—Based on the treatises of Salmon and C. Smith.

**6.** DIFFERENTIAL EQUATIONS.—Murray's *Differential Equations*, with supplementary lectures.

**7.** ALGEBRA.—Topics in Determinants, Theory of Equations, Quantics, Invariants, with lectures on Series and Functions of a real variable.

**8.** PROJECTIVE GEOMETRY.

## XIV.—ASTRONOMY.

*Lecturers*..... { PROFESSOR A. S. MACKENZIE, PH. D.
PROFESSOR.....

**1.** DESCRIPTIVE ASTRONOMY.—*Two hours a week through the year.* (The course will be given in 1908-09 if a sufficient number of students apply for it).

This is a general course in which the leading facts and principles of Descriptive Astronomy are presented. It may be taken by students who have the requisite mathematical equipment, namely, an elementary knowledge of algebra, geometry and trigonometry.

BOOK RECOMMENDED: Young, *General Astronomy*.

**2.** ENGINEERING ASTRONOMY.—The class in Engineering Astronomy, conducted by Professor Stone in the Faculty of Engineering, and the examinations conducted in this subject by the Faculty of Engineering, are recognized as qualifying for a degree.

## XV.—PHYSICS.

*(George Munro Professorship).*

*Professor*.....A. STANLEY MACKENZIE, PH. D.
*Demonstrator*.....A. J. BARNES, B. SC.

### LECTURE COURSES.

**1.** GENERAL PHYSICS.—*Given yearly. Mondays, Wednesdays and Fridays, 11 A. M.—12.*

*Pre-requisite*: It is assumed that those taking this class have a knowledge of elementary trigonometry.

In the work of this course a rapid survey of the whole subject of Experimental Physics is taken, the subjects treated being: Dynamics, Properties of Solids and Fuids, Sound, Heat, Electricity, and Magnetism, Light and other forms of Radiation. The course is fully illustrated by experiments, and special attention is paid to the solution of problems, all students being required to hand in papers for correction and criticism.

Members of the class who aim at passing merely will be examined on those parts of the subject only which are discussed in lectures. Those who aim at Distinction will be examined on private reading to be assigned in Mechanics, and will be expected to consult the books on other departments of the general subject of Physics recommended by the Lecturer.

In the earlier portion of the course especially, those who take this class in order to prepare for the examination in Medical Physics will be excused from attendance on days to be assigned in advance, and a separate examination paper will be set for them.

BOOKS RECOMMENDED: Watson, *Physics;* Duff, *Mechanics;* Jones, *Heat, Light and Sound;* Cumming, *Electricity treated experimentally.*
FOR DISTINCTION: MacGregor, *Kinematics and Dynamics.*

**2A.** ELEMENTARY MATHFMATICAL—HEAT AND ELECTRICITY.—*Given in alternate years. To be given in 1908-9. Tuesdays and Thursdays, 11 A. M.—12 M.*

*Pre-requisites*: Mathematics 2, Physics 1, and Physics 6.

The subjects studied will be Heat, and Electricity and Magnetism. Students aiming at Distinction will be examined on private reading to be assigned in the Kinetic Theory of Gases.

BOOKS RECOMMENDED: Maxwell, *Theory of Heat,* Poynting & Thomson, *Heat;* Thomson, *Elements of the Mathematical Theory of Electricity and Magnetism;* S. P. Thompson, *Lessons on Electricity and Magnetism.*
FOR DISTINCTION: Baynes' Mayer, *Kinetic Theory of Gases.*

**2B.** ENGINEERING PHYSICS.—The specifications of this course are the same as those of Physics 2A, with the additional requirement that the student will be examined on assigned reading in

the theory of Steam Engine and of Dynamo-electric Machinery. The course is intended for students in Engineering courses.

BOOKS RECOMMENDED: Ewing, *Steam Engine and other Heat Engines;* Thompson, *Dynamo-Electric Machinery.*

**3.** ELEMENTARY MATHEMATICAL—LIGHT AND SOUND—*Given in alternate years. To be given in 1909-10. Tuesdays and Thursdays 11 A. M.—12 M.*

*Pre-requisites*: Mathematics 2, Physics 1 and Physics 6.

The subjects studied will be Light and Sound. Students aiming at Distinction will be examined on private reading to be assigned in the Wave Theory of Light.

BOOKS RECOMMENDED: Preston, *The Theory of Light;* Ellis' Helmholtz, *The Sensations of Tone.*

FOR DISTINCTION: Mann & Millikan's Drude, *The Theory of Optics;* Mann, *Manual of Advanced Optics.*

**4.** ADVANCED MATHEMATICAL.—*Given in alternate years. To be given in 1908-9. Mondays and Wednesdays, 10—11 A. M.*

In this course an introduction to Mathematical Physics and Applied Mathematics will be given. It is intended for candidates for Honours in Pure and Applied Mathematics, and in Mathematics and Physics, but other students with the necessary qualifications may enter the class.

BOOKS RECOMMENDED: Tait & Steele, *Dynamics of a Particle;* Love, *Elasticity;* Williamson & Tarleton, *Dynamics;* Minchin, *Statics;* Routh, *Rigid Dynamics;* Greenhill, *Hydrostatics;* Besant, *Hydromechanics.*

**5.** EXPERIMENTAL METHODS.—*Given yearly. Fridays, 10—11 A. M.*

This course deals with experimental methods, and the relation of theory to research, as exemplified by papers of classic interest, or by recent developments of Physics. 1905-7 the subjects studied were taken from the writings of Professors J. J. Thomson and E. Rutherford on Ionization, Radioactivity, and allied topics. In 1907-8 the lectures dealt with alternating currents of electricity. The course may be conducted by lectures, by private reading, or by laboratory work or by a combination of them.

This course is intended primarily for candidates for Honours in Mathematics and Physics, and in Chemistry and Chemical Physics; but it may be elected by any student who shows that he is able to undertake it.

### LABORATORY COURSES.

All students in laboratory courses are required to keep a detailed record of the investigations made, describing the methods and apparatus used, giving the results obtained and discussing the degree of accuracy and the causes of error. The excellence of this record will count largely toward the student's final mark in the course. No student is admitted to the final examination in the course whose actual work in the laboratory is unsatisfactory either from the standpoint of quantity or quality.

**6.** ELEMENTARY PRACTICAL.—*Given yearly. At least five hours per week. Laboratory open on Mondays, Tuesdays, Wednesdays and Thursdays, 3—6 P. M.*

In this course the student makes a series of elementary experimental investigations to aid him in grasping the fundamental quantitative physical laws upon which the science is based, and to familiarize him with the methods and instruments used in physical measurements.

BOOKS OF REFERENCE: Ames & Bliss, *Manual of Experiments in Physics;* Stewart & Gee, *Elementary Practical Physics.*

**7.** ELECTRICAL MEASUREMENTS.—*Given yearly. At least five hours per week. Laboratory open on Tuesdays and Thursdays, 3—6 P. M.*

*Pre-requisite*: Physics 1, Physics 2, and Physics 6.

This class is intended for Engineering students, and consists of a series of measurements in Magnetism and Electricity, such as Magnetic Fields, Elements of Earth's Magnetism, Magnetic qualities of Iron, use and calibration of Galvanometers, Voltameters, Resistance, Electromotive force, Capacity, Self-induction, Power, Management of Storage Batteries, Photometry.

BOOKS OF REFERENCE: Stewart & Gee, *Elementary Practical Physics, Vol. II;* Ayrton, *Practical Electricity;* Nichols, *Laboratory Manual of Physics and Applied Electricity.*

**8.** ADVANCED PRACTICAL.—*Given yearly. At least five hours per week. Laboratory open Tuesdays and Thursdays, 3—6 P. M.*

*Pre-requisites:* Physics 1, Physics 2 or Physics 3, and Physics 6.

The work of this class consists of the investigation of physical laws of a more complex kind than in Physics 6, and a greater degree of precision will be expected in the determinations made. Students who show sufficient ability will be allowed to conduct new investigations, provided they do not use for that purpose a large portion of the time prescribed. Members of the class are required to take Physics 5, and to study the methods they may use in the works recommended by the instructor.

BOOKS OF REFERENCE: Those in Physics 7, and also Glazebrook & Shaw, *Practical Physics;* and Ostwald, *Physico-chemical Measurements.*

**9.** RESEARCH COURSE.—*At least ten hours per week.*

The work will consist of new investigations conducted by students who show sufficient ability, and are otherwise qualified to undertake it.

Members of the class will be required to acquaint themselves with the literature of the subject in which their investigations lie, to prepare critcal reports on those portions of it with which their work is more immediately concerned, and to prepare full reports on the methods and results of their own observations.

## XVI.—CHEMISTRY.

*(McLeod Professorship).*

*Professor*.....E. MACKAY, PH. D.
*Demonstrator*.....H. J. CREIGHTON, M. A.

**1.** GENERAL CHEMISTRY.—*Mondays, Wednesdays and Fridays, 9—10 A. M.*

Measurement of mass, volume, pressure, temperature, heat; solids and liquids; gases and gas laws; melting-points, boiling-points, solution, crystallization. Preparation and properties of common acids and alkalies; combustion, air, water, oxygen, hydrogen; fundamental laws of combination, atomic theory, Avogadro's law, formulæ, equations; chlorine; halogen group; dissociation, mass action; valence; sulphur; nitrogen; argon; carbon; periodic law; nitrogen group; isomorphism; potassium, sodium, ammonium; silver, copper, gold; atomic heat; calcium, barium; magnesium, zinc, cadium, mercury; thermochemistry; boron, aluminium; carbon group; chromiumn; manganese; iron, nickel, cobalt, platinum. Some common organic compounds.

The lectures are illustrated as fully as possible by experiments. A tutorial class, attendance on which is in general optional, meets on Friday afternoons.

Candidates for Distinction are required to take laboratory work as specified under Chemistry 1A.

BOOKS RECOMMENDED: Smith, *General Inorganic Chemistry*, (Century Co.).

**1A.** The work of this class is that of Chemistry 1, with three to five additional hours a week devoted to laboratory work.

The laboratory work is designed to make the student familiar with ordinary laboratory operations and to lead him to solve simple problems in chemistry by experiment. Several common inorganic substances are prepared and studied; simple quantitative experiments, leading to the fundamental laws of Chemistry, are performed; and some time is devoted to elementary work in qualitative analysis.

**2.** *Tuesdays and Thursdays, 9—10 A. M.*

For admission to this class Chemistry 1A, or an equivalent class in chemistry, is required.

Autumn term: the metals and their compounds; elements of Physical Chemistry.

Spring term: compounds of carbon, their purification and analysis; the paraffins and their chief derivatives; ethylene; acetylene; benzene and its chief derivatives.

At least four hours a week must be devoted to laboratory work. This will include qualitative analysis and the preparation of pure laboratory reagents and typical inorganic and organic substances.

BOOKS RECOMMENDED: A. A. Noyes, *Qualitative Chemical Analysis*, (The Macmillan Co.); Remsen, *Compounds of Carbon*, 4th edition, (D. C. Heath & Co.)

**3.** MEDICAL CHEMISTRY.—*Autumn term: Saturdays, 9—10 A. M. Spring term: Tuesdays, Thursdays and Saturdays, 9—10 A. M. Laboratory: Tuesdays and Thursdays, 10—11 A. M., Fridays, 11 A. M.—12 M.*

Students entering this class must have taken Chemistry 1A, or an equivalent class in chemistry.

*Class Work.*—The subjects of study in the class include pure chemistry and the applications of chemistry to medicine.

Pure Chemistry: review of the chemistry of the metals, noting especially compounds having medicinal or toxic properties; com-

pounds of carbon—their purification and analysis; the paraffins and their chief derivatives; ethylene; acetylene; benzene and its chief derivatives.

Medical Chemistry: air; water, its sanitary analysis and purification; adulteration of foods; the proximate principles of the body and of food; typical foodstuffs—as milk, flour, bread, meat; the blood; the digestive fluids and digestion; urine.

*Laboratory Work.*—All members of the class are required to devote at least three hours a week to laboratory work. This will consist of qualitative analysis, including the detection of the more commonly occurring poisons, the detections of adulterations in milk, simple quantitative exercises in the analysis of air and water, and the quantitative estimation of glucose, albumen and urea.

BOOKS RECOMMENDED: Remsen, *Compounds of Carbon*, 4th edition (D. C. Heath & Co.); F. M. Perkin, *Qualitative Chemical Analysis* (Longmans.)

**4.** ENGINEERING CHEMISTRY.—*Autumn Term: Tuesdays and Thursdays, 9—10 A. M. Spring Term: Fridays, 12 M.—1 P. M. Laboratory: Mondays and Wednesdays, 3—6 P. M.*

For admission to this class Chemistry 1A, or an equivalent class, is required.

During the Autumn term the lectures in this class are the same as in Chemistry 2. For the Spring term the subjects of study are: the chemical properties of iron and steel, cements, asphalt, lubricating oils; and the examination of water for city supply or for industrial purposes. Students of mining study also the properties of coal-mine gases and of blasting explosives.

Five hours a week are devoted to laboratory work. This includes a thorough course in qualitative analysis. Students of Mining are given additional work in the analysis of minerals.

BOOKS RECOMMENDED: A. A. Noyes, *Qualitative Analysis* (The Macmillan Co.) For reference: Stillman, *Engineering Chemistry* (Chemical Publishing Co.); Clowes, *Detection of Inflammable Gases and Vapors* (Crosby, Lockwood & Co.)

## ADVANCED CLASSES.

The following classes are especially intended for candidates for Honours in Chemistry and Chemical Physics; but any student who has passed in Chemistry 2 with Distinction may be admitted. The classes are given in alternate years.

**5.** HISTORY OF CHEMISTRY.—*(1909-10). Once a week.*

The development of chemical theory from the time of Boyle.

BOOKS RECOMMENDED: Tilden, *Short History of the Progress of Scientific Chemistry* (Longmans & Co.); Roscoe, *Dalton and the Rise of Modern Chemistry* (Macmillan & Co.); Shenstone, *Justus von Liebig* (Macmillan & Co.); Thorpe, *Essays on Historical Chemistry* (Macmillan & Co.); Schorlemmer, *Rise and Progress of Organic Chemistry* (Macmillan & Co.); and selected memoirs from the Alembic Club Reprints and Ostwald's Klassiker.

**6.** PHYSICAL CHEMISTRY.—*(1908-9). Once a week.*

Solutions; thermo-chemistry; electro-chemistry; and chemical dynamics.

LABORATORY CLASSES.

**7.** PRACTICAL INORGANIC CHEMISTRY.—*At least ten hours a week.*

The work of this class consists of quantitative analysis and the preparation of inorganic substances.

One hour a week is taken for the discussion of analytical methods, and at least ten hours a week must be devoted to laboratory work. The preparation and analyses prescribed are designed to illustrate typical methods. The quantitative exercises carried out are the following: prepation of standard solutions of acids and alkalies, estimation of chlorine, sulphur, phosphorus, carbon in carbonates, ,silicon, silver, copper, iron maganese, zinc, calcium and magnesium, volumetric as well as gravimetric methods being employed wherever applicable.

Candidates for Distinction are required to undertake additional work selected from the following: estimation of iodine, nitrogen in nitrates, potassium, chromium, aluminium and lead, analysis of iron and steel, analysis of ores, water analysis.

BOOKS RECOMMENDED: Renouf, *Inorganic Preparations* (Johns Hopkins Press); Lengfeld, *Inorganic Chemical Preparations* (The Macmillan Co.); Talbot, *Quantitative Analysis* (The Macmillan Co.); Clowes and Coleman, *Quantitative Analysis* (J. & A. Churchill); Blair, *Chemical Analysis of Iron* (J. B. Lippincott & Co.); Mason, *Examination of Water* (Wiley & Sons).

**8.** PRACTICAL ORGANIC CHEMISTRY.—*At least ten hours a week.*

The work of this class consists of the preparation and analysis of organic compounds. At least ten hours a week must be devoted to laboratory work. A sufficient number of organic compounds are prepared to illustrate the most important reactions and methods of working. Quantitative determinations are carried out of carbon, hydrogen, oxygen and nitrogen.

Students are permitted to substitute for the analytical work an equivalent amount of work in other branches of analysis, or in Physiological Chemistry.

Candidates for Distinction are required to do additional work of the kind outlined above.

BOOKS RECOMMENDED: Remsen, *Compounds of Carbon*, 4th edition, (D. C. Heath & Co.); Cohen, *Practical Organic Chemistry for Advanced Students* (Macmillan & Co.); Gatterman, *Practical Methods of Organic Chemistry*, translated by Schober (Macmillan & Co.)

**9.** The work of the class will consist either *(a)* of original investigation conducted by students who have shown themselves qualified to undertake it, or *(b)* of work in analytical or synthetical chemistry in continuation of the work of either Chemistry 7 or 8.

CHEMICAL LABORATORY.

The general laboratory is open on Mondays and Wednesdays from 10 to 11 A M., and from 3 to 5 P. M., on Tuesdays and Thursdays from 10 A. M. to 12 M. and from 3 to 5.30 P. M., and on Fridays from 10 A. M. to 12 M. The quantitative laboratory is open daily, except Saturdays, from 9 A. M. to 6 P. M.

Laboratory students are allowed the use of all the more inexpensive reagents. They are required to provide themselves with the more expensive reagents as alcohol and ether, and they are charged with the value of apparatus they have broken or injured.

All members of practical classes are required to keep a detailed record of their laboratory work. The character of this record is a factor in determining the standing of a student in the class lists.

## XVII.—GEOLOGY.

*Professor*.....J. EDMUND WOODMAN, A. M., S. D.

**1.** GENERAL GEOLOGY.—*Lectures, field and laboratory work, with reading. Tuesday and Thursday, 12 M.—1 P. M; laboratory, Wednesday and Friday, 2—4 P. M.; field on Saturdays (mornings or whole days) throughout the Autumn. During the field season, laboratory only one day a week.*

This course may be counted for the degree of B. A. without field work; but no other course in Geology may be taken until such field work shall have been made good.

**3.** GEOLOGY OF CANADA.—*Lectures, field, library and laboratory work. Monday, Wednesday and Friday, 4—5 P. M.; field work one day or two half-days per week during the open season; library and laboratory work during the winter.*

Field work in this course is individual. The lectures cover general dynamical problems during the first term and the historical geology of Canada during the second.

**4.** ENGINEERING GEOLOGY.—*Lectures, field work, laboratory and reading. Monday, Wednesday, and Friday, 10—11 A. M., first half year; field work as in course 3.*

Geology 1 is pre-requisite. Required of candidates for a degree in Civil Engineering; not open to others.

**6.** MINING GEOLOGY.—*Lectures, field, laboratory and library work, Mondays, Wednesdays and Fridays, 11 A. M.—12 M.; field and library work by appointment.*

Courses 6 and 7 are complementary, and given in alternate years.

Geology 1 is pre-requisite, and Mineralogy 1 is recommended.

Course 6 concerns itself with the geological relations and genesis of ore deposits. Much reading of original papers is done, and a thesis must be prepared during the second term, upon a topic studied especially in the field or library. Distinction will be based largely upon the reading and thesis.

[Not given in 1908-09].

**7.** ECONOMIC GEOLOGY.—*Lectures, laboratory and library work, with field work if possible. Mondays, Wednesdays, and Fridays, 11 A. M. —12 M.*

The course deals with the non-metalliferous deposits and water supply. Special emphasis is laid upon coal. In both 6 and 7 the deposits of Nova Scotia will be treated in detail. The general conduct and requirements are similar to those of course 6.

## XVIII.—MINERALOGY.

*Professor*.....J. EDMUND WOODMAN, A. M., S. D.

**1.** *Lectures and laboratory work, Tuesdays and Thursdays, 10—11 A. M.; laboratory, Wednesdays and Fridays, 2—4 P. M.*

Chemistry 1A is pre-requisite; and a knowledge of Elementary Optics recommended.

## XIX.—BIOLOGY.

*Lecturer*.....

1. *Tuesdays, 2—4 P. M., Saturdays, 11 A. M.—1 P. M.*

BOTANY.—The course in Botany will have special reference to the following subjects: Protoplasm and Plant-cells the Tissue and Tissue Systems of Plants, Morphology of the Plant-body, Plant Physiology, the Principles of Classification and the Laws of Distinction, the Protophyta (Schizophyceæ), the Phycophyta (Chlorophyceæ and Phæophyceæ), the Carpophyta (Rhodophyceæ, Ascomyceteæ and Basidiomyceteæ specially), the Bryophta (Mosses and Liverworts), the Pteridophyta (Ferns, Horsetails and Club-mosses), the Anthopyta (specially the Coniferæ Gramineæ, Orchidaceæ, Liliaceæ, Uticaceæ, Labiatæ, Compositæ, Umbelliferæ, Rosaceæ, Cruciferæ, Leguminosæ, Ranunculaceæ). The Morphology and life history (the anatomy, histology, and development) of at least two common or representative species of each group of plants above named, in minute detail.

General attention will be given to the native flora of the Province, with special notice of foreign as well as native species of interest from economic, medicinal or injurious properties.

The preliminary study in Botany as indicated in Grade IX of the Public School Course, and especially the formation of a local collection of plants, even if unnamed and unclassified, will be an advantage to any student entering upon the course.

Practical instruction will be given in the collecting, drying and mounting of specimens, the use of the microscope, the preparing of microscope sections, and the general direction of plants. The use in class of a number of microscopes, will be granted the students under the care and direction of the Lecturer; but a hand lens, glass slides, cover glasses, scalpels and other apparatus or books necessary for each student, should be supplied by each for himself. Collections, notes, class-work and drawings of students will be estimated for incorporation into final class standing.

Students aiming at Distinction are required, in addition, during the summer vacation to study practically the flora or a section of the flora in some district, to present a collection of the said flora properly classified and mounted, and to pass an oral and practical examination on the same at the beginning of their next session.

TEXT BOOK: Bessey, *Essentials of Botany.*

Manuals of the practical work prescribed for the summer will be recommended by the Lecturer.

FOR REFERENCE: Special text-books will be recommended in each subdivision of the subject during the course of the lectures and demonstrations.

ZOOLOGY.—The course in Zoology will consist of lectures supplemented by practical work.

The student will be expected to master the system of Zoology as contained in Shipley and McBride's Elementary Text-Book, parallel with the course of lectures expounding zoological principles and sketching local distribution of species and genera, and with the life-study of dissections of local species under the microscope or scalpel as follows:

1. Five species of the local lobosa; 2. One species each from any five of the following: The Foraminifera, Heliozoa, Radiolaria,

Flagellata, Choanoflagellata, Dinoflagellata, Paramoecium, Vorticella, Sporozoa; 3. Three species of marine, and three of French-water Sponges; 4. One species each of Hydra: the Campanularidae, Plumularidae, and Sertularidae; Aurelia, Metridium; and the skeletons of Zoantharia and Alcyonaria; 5. A species each of the Platyhelminths and of the Nemanthelminths; 6. Five species of local freshwater and marine Polyzoa and a Rotifer; 7. The common Starfish; 8. The common sea-urchin; 9. An Earthworm; 10. A Lobster; 11. Entomostraca in water supply, and dissection of Grasshopper in detail; 12. Oyster, Clam, or Mussel; 13. A Trout, Smelt, Herring or Cod. (Or No. 16 in full detail); 14. A Frog. (Or No. 16 in full detail); 15. A Pigeon. (Or No. 16 in full detail); 16. A Rabbit. (If in full detail for 12, 13, 14, and 15). The scarcity of any of the above during the season, or the abundance of other species may modify the list of species for dissection or life-study as may suit the circumstances most conveniently.

FOR DISTINCTION: The candidate must pass an examination on supplementary texts to be named after the opening of the course; or present a paper showing practical, original, or local exploratory work in some zoological subdivision; or present a collection made and determined, proving the ability of the candidate to deal with practical zoological problems.

## XX.—FREEHAND DRAWING.

The class in Freehand Drawing conducted by the Victoria School of Art and Design is recognized as qualifying for a degree. It is held in the rooms of the Victoria School of Art on Argyle Street. Candidates offering this class for a degree must present certificates, showing that they have given the required attendance and have satisfactorily completed the work of the class. Blank form of certificate may be had from the Secretary of the Faculty of Arts and Science. Information regarding the hours of meeting of the class, fees, etc., may be obtained on application to Mr. Alexander McKay, Secretary of the Victoria School of Art and Design.

The subjects studied are as follows:

Free-hand Drawing. Geometrical Drawing. Shaded Drawing from the Round. Modelling in clay. Principles and practice of Decorative Design and elements of Perspective.

## XXI.—ANATOMY.

The University provides no instruction in this subject, but the Junior or the Senior Anatomy Class and the Practical Anatomy Class, conducted in the Halifax Medical College by Professor A. W. H. Lindsay, M. D., are recognized as qualifying for a degree. The Junior Anatomy Class meets on Mondays, Wednesdays and Fridays at 12—1 P. M. The Senior Class meets on Tuesdays and Thursdays at 12—1 P. M., and Saturdays at 10—11 A. M. The fee for each of these classes is $15.00. The Practical Anatomy Class meets daily (Saturdays excepted), at 3.30 P. M.; fee, $15.00.

Undergraduates who have taken the Practical Anatomy Class as part of their course are required to produce evidence of having, during their attendance on such class, carefully dissected at least three "parts" of the body.

Undergraduates who have taken the above classes as part of their course are required to present certificates of having passed the examinations conducted by the Faculty of Medicine.

## XXII.—HISTOLOGY.

The University provides no instruction in this subject, but the class conducted in the Halifax Medical College is recognized as qualifying for a degree. The class meets on Mondays, Wednesdays and Fridays, at 11 A. M.—12 M. The fee for the course is $15.00.

## XXIII.—PHYSIOLOGY.

The University provides no instruction in this subject, but the class conducted in the Halifax Medical College, is recognized as qualifying for a degree. The class meets on Tuesdays, Thursdays and Saturdays, at 11 A. M.—12 M. The fee for the course is $15.00.

Undergraduates who have taken this class as part of their course are required to present a certificate of having passed the examination of the Faculty of Medicine.

## XXIV.—THEORY AND HISTORY OF MUSIC.

The classes in the Theory of Music and History of Music, conducted in the Halifax Conservatory of Music, are recognized as qualifying for the degree of Bachelor of Music. In the Theory the course extends over three years; in the History, over two. Information as to details of subjects studied in the classes, fees, text-books, etc., may be obtained on application to the Director of the Conservatory.

## XXV. DRAWING.

*Lecturer*....PROFESSOR E. A. STONE, Ma. E., M. Can. Soc. C. E.

**1.** MECHANICAL DRAWING.—*Lectures two hours and drawing fourteen hours per week.*

All engineering students are required to take this course in the first year. The work includes the use and care of drawing instruments, lettering, construction of scales, coloring, geometrical exercises, elementary projections, perspective, shades and shadows, drawing of simple objects to scale from measurements, tracing and blue printing.

**2.** DESCRIPTIVE GEOMETRY.—*Lectures three hours per week, drawing five hours per week during the second term.*

Problems in the relations of straight lines and planes in space, tangencies, intersections and developments, surfaces of revolution, warped surfaces. (Theory and Plates).

## XXVI. CIVIL ENGINEERING AND SURVEYING.

*Professor*.....E. A. STONE, Ma. E.

### SURVEYING.

**1.** *Lectures three hours per week; field work nine hours per week first term; drawing four hours per week second term.*

Instruction is given in the use and adjustment of the various surveying instruments, also in plane land surveying by chain, compass, and transit and level, city surveying, hydrographic surveying, topographical and mine surveying. The work includes theory and practice in field work and maps, and conventional representation of topographical features.

**2.** *Lectures two hours per week; field work ten hours per week first term, drawing seven hours per week second term.*

This course includes instruction in the preliminary and location surveys of railroads, and practice in running in curves, setting slope stakes, etc., the measurement of quantities in excavation and embankments, construction work, switches and crossings, track work and tunnelling. The field work includes contour surveys, hydrographic surveys and topographical surveys. The drawing work consists in making the maps of the survey and a short line of railway, the estimation of quantities and calculation of haul and costs. In addition to the railroad work instruction is also given in highway construction, showing the methods of constructing and draining country road and city streets and pavements.

**3.** *Lectures one hour per week; drawing four hours per week first term, field work and drawing two hours per week second term.*

Instruction is given in geodetic surveying (triangulation systems, measurements of base lines, etc.), the determination of latitude, longitude and time as applied to the survey of large tracts of land where the curvature of the earth must be taken into account.

During the first term each student is required to take complete records and make full drawings of the work of the previous engineering camp with estimates of quantities and costs.

### MECHANICS.

*Lectures three hours per week throughout the session; drawing one hour per week second term.*

Shearing forces and bending moments in simple and continuous beams under uniform and concentrated loads, and the applications to designs of beams and girders.—Investigation and design of long olumns. Investigation and design of shafts, pulleys, etc. Kinematics of Machinery and general treatment of machines. Transmission of power by gearing and belts with designs for same —Calculation of moments of inertia and radii of gyration.

STRUCTURES.

**1.** *Lectures two hours; laboratory two hours per week; second term.*

The course first treats of the various materials used in engineering structures, the properties, manufacture and costs of the various kinds of hydraulic cements, mortar, bricks, iron, steel, timber and stone. Elasticity and strength of these materials under different conditions. Safe loads and working stresses, together with laboratory tests on materials for sale or found in Nova Scotia. This is followed by a course on foundations, crib work, coffer dams, caissons, pneumatic caissons, together with the theory of earth pressure and design of retaining walls, culverts, piers, and abutments.

**2.** *Lectures three hours per week, drawing and design twelve hours per week.*

Calculation of stresses and design (analytically and graphically) of wooden and iron trusses, highway and railroad bridges, (simple bridges, cantilever bridges, draw and suspension bridges) for uniform loads, excess loads and wheel concentrations, calculation of stresses and design of metallic arches and masonry arches.

RAILWAY ECONOMICS.

*Lectures one hour per week; first term.*

Organization of railroad companies and financing. Effect of grades, curvature and distance on the operating expenses. Relation of operating expenses to gross revenue and fixed charges. Relation of probable traffic to centres of population and gross revenue. Effect of change of route on the gross revenue and operating expenses. Costs of betterment of existing lines in relation to saving in operating expenses and increase of gross revenue.

## XXVII.—HYDRAULICS AND HYDRAULIC ENGINEERING.

*Lecturers*.....PROFESSOR E. A. STONE.
PROFESSOR ——

**1.** *Lectures two hours per week.*

Principles of hydraulics (statics and dynamics). Laws of flow through orifices, over weirs in open and closed channels. Laws of flow through long pipes and calculation of discharge and sizes of pipe. Guaging of streams.

Parchment area. Relation of rainfall and run-off. Discharge curves of streams. Location of water power plants. Hydraulic motors. General theory of turbines. Impulse turbines. Reaction turbines. Design of water power stations. Development of water powers. Typical water power plants.

Elements of magnetism and electricity. Principles of dynamo-electric machines. Production of direct current. Types of machines. Characteristic curves. Theory of alternating current. Alternating current generators. Transformers. Synochronous and induction motors. Transmission of electric current.—PROFESSOR STONE AND ——

**2.** *Lectures two hours per week throughout the session; drawing and design three hours per week second term.*

Principles of Sanitary Engineering and Sewerage. Water supply for cities and towns. Storage of water from drainage areas. Canal work. Piers and docks.—PROFESSOR STONE.

## XXVIII.—METALLURGY.

*Professor*.....
*Lecturer*.....A. L. MACCALLUM, B. A. Sc.

**1.** ASSAYING.—*Tuesdays and Thursdays, 2—6 P. M., during second term.*

This course consists of introductory lectures at the beginning of the second term, and of laboratory work during the remainder of the term. Special methods are given for the assay of ores peculiar in Nova Scotia. The aim in the wet method is to make the student familiar, after his training in exact gravimetric and volumetric analysis, with quick commercial processes, such as are universally employed in the laboratories of industrial works.

The following work is required:—

DRY METHODS:—Fire assay of lead ores. Scorification and crucible assay for gold and silver. Fire assay of base and Dore bullion. Evaporating power of coal.

WET METHODS:—Volumetric analysis for lead, copper, arsenic, antimony, iron and manganese in ores and slags. Rapid methods for analysis of sulphur in ores and matte, and in coal or coke, Proximate analysis of coal or coke.

TEXT BOOKS: R. W. Lodge, *Notes on Assaying;* Low, *Technical Methods of Ore Analysis.*

**2.** NON-FERROUS METALLURGY.—*Mondays, Wednesdays and Fridays, 12—1 P. M.*

This course consists entirely of lectures and reading.

The following metals are taken up in order:—copper, lead, gold, silver, zinc and aluminium. Considerable time is spent at the beginning of the course in thoroughly describing metallurgical machinery, furnaces, and processes in general, before entering upon the metals in detail. The students are constantly referred to the trade catalogues for types of modern metallurgical machinery, and are required to make abstracts of articles of interest in the standard periodicals. The aim of the course is to acquaint the student with the method in actual use to-day, and abandoned methods are considered only when necessary to trace the development of a modern process.

BOOKS FOR REFERENCE: Schnabel *Handbook of Metallurgy;* H. O. Hofman, *Metallurg of Lead;* E. D. Peters, *Modern Copper Smelting;* T. K. Rose, *Metallurgy of Gold;* H. F. Collins, *Metallurgy of Silver;* J. W. Richards, *Aluminium;* W. R. Ingalls, *Metallurgy of Zinc.*

**3.** METALLURGY OF IRON AND STEEL.—*Mondays and Wednesdays, 10—11 A. M.*

This course consists chiefly of lectures and reading. The aim in the course is to give the student a very thorough foundation

in the chemistry and calorific equations of the different metallurgical processes employed in the iron and steel industry, as well as a detailed knowledge of the practical operation of each process. Considerable time is spent upon the structure of steel, segregation, influence of foreign elements, heat treatment, and microscopical examination. The practical aspects of welding, tempering, working and casting of steel are fully considered. The student is required to make abstracts of articles of interest in this branch of metallurgy as they appear in the Trans. A. I. M. E., Jour. I. and S. Inst., and Iron Age.

BOOKS FOR REFERENCE: H. H. Campbell, *The Manufacture and Properties of Iron and Steel;* H. O. Hofman, *Notes on Iron and Steel;* F. W. Harbord, *The Metallurgy of Steel;* H. M. Howe, *Metallurgy of Steel;* A. H. Sexton, *An outline of the Metallurgy of Iron and Steel.*

**4.** METALLURGICAL LABORATORY.—*Thursdays, 9 A. M.—6 P. M. Fridays, 2—6 P. M.*

This course consists entirely of laboratory work of a practical nature. The student duplicates metallurgical and ore dressing operations on a small scale. In the laboratory the student becomes accustomed to handling machinery and to the use of ordinary tools. The student is drilled as much as possible in the methods of simple scientific research. The laboratory work, wherever, possible tends toward the solving of some mining or metallurgical problem that occurs in this Province, and the individual theses of this department have the same end in view. Table concentration, jigging, hydraulic classification tests, and reverberatory roasts are made on lead, copper, silver, and gold ores. Stamp mill runs are made on local ores, in great detail, in an experimental mill especially designed for a wide range of variation of adjustment. Comparative graded crushing tests are made with various crushers and crushing rolls on different ores.

The following metallurgical laboratory tests are required:—Barrel chlorination; free milling test on gold ore; oxidizing roast; best selecting process; silver chloridizing roast; pan amalgamation; percolation and slime agitation treatment of an ore with cyanide solutions. Considerable attention is given to cyanide tests. Comparatively large quantities of stamp mill tailings from the experimental stamp mill runs are separated by water classification into "sharps" and "slimes," the sharps being treated by percolation, and the slimes by agitation. Comparisons are also drawn between this method of treating stamp mill tailings and the method of concentrating the tailings with the subsequent cyanidation of concentrates and the discarding of the poor tailings, and with the process of sliming the whole tailings product and the treating it by slime agitation. In all these tests the student is taught explicitly the principles of testing for a process. He is required to assay all the original ores and all products, and to hand in correct and neat reports in approved forms.

**5.** METALLOGRAPHY.—The course consists of a few lectures and an extended amount of laboratory work. The course is entirely voluntary, and the lectures by appointment. The nature of the instruction is primarily for research students, and those specializing in Iron and Steel. The laboratory work consists of a preliminary training in the determination of the freezing points and microstructure of a system of amalgams, alloys, and heat treatment of steel with simultaneous examination of the

specimens under the microscope, followed by a more or less extended special research.

BOOKS OF REFERENCE: Hiorn's *Metallography;* H. M. Howe, *Iron, Steel and other Alloys.* F. O. Osmond and J. E. Stead, *Microscopical Examination of Iron and Steel.*

**6.** ELEMENTARY METALLURGY OF IRON AND STEEL.—*Tuesdays and Thursdays, 11—12 A. M.*

This course is intended for students in Engineering in departments other than Mining. The theory and practical operations in the manufacture of steel are not entered upon more fully than is absolutely necessary to give the student a clear knowledge of the production of steel. The major part of the time will be spent upon the structure, homogeneity, specifications, and heat treatment of steels, the influence of foreign elements upon steel, and the physical testing of steel.

## XXIX.—MINING.

*Professor*.....

*Lecturer*.....R. H. BROWN.

**1.** GENERAL MINING.—*Mondays, Wednesdays and Fridays, 9—10 A. M.*

This course consists chiefly of lectures and reading with illustrative practical problems wherever these are possible. The ground covered is very broad and is treated under the general heads of Prospecting Boring, Breaking Ground, Blasting, Timbering, Tunnelling, Sinking, Methods of Working, Hoisting, Haulage, Pumping and Ventilation.

The most that the course can do is to acquaint the student with the theory of general mining, and it in no way prepares him for practical mining, except to give him variety and breadth of information. Current periodicals are reviewed and abstracted, and much effort is spent in trying to arouse in the student a keen interest in up-to-date operations in other parts of the world. Special stress is laid upon the methods of Mining employed in Nova Scotia. All students are strongly urged to engage in practical work during the summer vacation.

BOOKS FOR STUDY: C. LeNeve Foster, *Ore and Stone Mining;* Ihlseng, *Manual of Mining;* A. Lupton, *Mining* · Galloway, *Lectures on Mining.*

**2.** ORE DRESSING AND CONCENTRATION.—*Tuesdays and Fridays, 10—11 A. M.*

This course consists chiefly of lectures and reading, in direct conjunction with the student's work in the metallurgical laboratory, and of thesis work in the fourth year. The aim of the course is to acquaint the student in as thorough a manner as possible with concentrating machinery, the laws of crushing, screen sizing, classifying, jigging, amalgamating, etc., and the cost, planning and construction of mills. Great stress is laid upon the testing of an ore for a process, i. e., the obtaining of some combination of different dressing operations which shall make the mill-treatment of a given ore a financial success. The

course is directly connected with Metallurgy 4, where the important types of machinery are available for practice.

BOOKS FOR STUDY: R. H. Richards, *Ore Dressing;* Henry Louis, *Handbook of Gold Milling.*

**3.** COAL MINING.—*Tuesdays and Thursdays, 9—10 A. M. for first term.*

This course consists almost wholly of lectures and reading on Ventilation, Modes of Working and Lighting. Haulage, Sinking, Breaking Ground, Winding, Timbering and Pumping are considered only in their special aspects which bear particularly on Coal Mining. The student is required to work out many practical problems, and is also obliged to write out fully some of the more advanced examination papers given in recent years by the Provincial Board for managers, underground managers and overmen. Special lectures are given from time to time by specialists in Coal Mining. Mr. R. H. Brown.

BOOKS FOR READING: Hughes, *A Text Book of Coal Mining;* W. Galloway, *Lectures on Mining;* Kerr, *Practical Coal Mining;* Sawyer, *Accidents in Mines;* Pamely, *Colliery Manager's Handbook.*

**4.** FIELD WORK IN MINING AND GEOLOGY.—The session of this class is held for a period of five or six weeks each year, commencing shortly after the Spring Convocation.

The class will first make a detailed structural study of a limited area, to gain independence in field work. The remainder of the time will be spent in visiting mining districts in various parts of the Province, and studying the economic conditions and operations. Coal and gold mines in different districts are visited, and detailed notes and sketches made of the mining and milling practice of each place. Blast furnace, open hearth, and rolling mill operations are closely studied and careful notes made of everything observed. Special attention will be paid to constructive criticism of mining and milling practice, and to the relations between these and the geology of the district. Each student must hand to the Professor of Mining, on or before October 15th, in his fourth year, a detailed written report based upon his field notes made in this session, together with his field note-book, and any maps or sketches which he may have, bearing upon the problems.

## XXX.—ENGINEERING LAW.

*Lecturer*.....PROFESSOR BENJAMIN RUSSELL.

The lectures will deal with the law of Contracts and, for students in Mining with such topics as license to search for minerals, liability of owners for negligence of miners, etc.

# Faculty of Law.

THE PRESIDENT.

R. C. WELDON, PH. D., K. C. — W. B. WALLACE, LL. B., J. C. C.
B. RUSSELL, D. C. L., J. S. C. — W. F. O'CONNOR, B. C. L., LL. B.
H. MCINNES, K. C., LL. B. — G. PATTERSON, A.M., LL.B., J.C.C.

Correspondence should be addressed to
*Dean Weldon, Law School, Dalhousie College.*

## COURSES OF LECTURES

The following Courses of Lectures to be given in the Session of 1908-9, will begin on the 2nd of September, 1908, and end on the 17th February, 1909.

### CONSTITUTIONAL AND INTERNATIONAL LAW.

*(George Munro Professorship.)*

*Professor*.....R. C. WELDON, K. C.

#### CONSTITUTIONAL LAW.

*Two lectures per week.* Subjects of lectures:

Constitutional Conventions. Royal Prerogative.
*Lex Parliamenti.* Colonial Laws Validity Act.
Select Cases; Cartwright's Cases.

#### CONSTITUTIONAL HISTORY.

*Two lectures per week.* Subjects of lectures:

Feudalism in England. Origin and growth of the Two Houses of Parliament. Origin and Development of Trial by Jury. Origin and Development of the Courts of Law. The Royal Prerogative. History of the Law of Treason. The Liberty of the Person. The Liberty of the Press. History of Party Government. Origin and Development of the Cabinet System. History of the Reform Bills. The Written Code of the Constitution. *Magna Charta.* Petition of Right. Bill of Right. *Habeas Corpus.*

TEXT BOOK: Taswell-Langmead's Constitutional History of England.

#### CONFLICT OF LAW.

*One lecture per week.* Subjects of lectures:

Leading rules as to (1) personal capacity, (2) rights of property, (3) rights of obligation, (4) rights of succession, (5) family

rights, (6) forms of legal acts. The use of courts by strangers. The effect of foreign judgments. Select cases upon the Conflict of Laws.

TEXT BOOK: Nelson's Private International Law.

INTERNATIONAL LAW.

*One lecture per week.* Subjects of lectures:

History of North Atlantic Fisheries. Convention of London, 1818. Territorial Waters. Treaty of Washington, A. D. 1871. Consuls. Commercial Treaties. Naturalization. Extradition. Blockade. Contraband. Intervention. Capture. Prize Courts.

TEXT BOOK: Hall's International Law.

**CRIMES.**

*Lecturer*.....W. B. WALLACE, LL. B., J. C. C.

*Two lectures per week.* Subjects of lectures:

Sources of Criminal Law. Offences against Public Order, internal and external. Offences affecting the administration of Law and Justice. Offences against Religion, Morals, and Public Convenience. Offences against the Person, and Reputation. Offences against rights of property and rights arising out of Contract and offences connected with trade. Procedure. Proceedings after conviction.

TEXT BOOKS The Canadian Criminal Code, 1892.

**SHIPPING.**

*Lecturer*.....PROFESSOR WELDON.

Subjects of lectures:

Registration of Shipping. Transfer. Mortgage. Bottomry and Respondentia. Charter Party. Bills of Lading. Collision. Damage. Salvage, Freight. Towage. General Average.

**CONTRACTS.**

*Professor*.....B. RUSSELL, M. A., D. C. L., J. S. C.

*Two lectures per week.* Subjects of lectures:

Definition of terms: agreement, consideration, proposal, acceptance, promise &c. Persons who may contract. Principal and agent. Disabilities arising from infancy, coverture, lunacy, intoxication, &c. Express and implied contracts. Verbal and written contracts. Specialties. Statutory requirements as to the validity and authentication of contracts; Statute of Frauds. Causes vitiating agreements; mistake, fraud, duress, &c. Discharge of contracts, recision, performance, payment, release, merger, &c. Leading cases.

TEXT BOOKS: Finch's Contracts, and Anson on Contracts.

### EQUITY JURISPRUDENCE.

*Lecturer*.....PROFESSOR RUSSELL.

*One lecture per week, extending over two years.* Subjects of lectures:

Trusts, Mortgage, Frauds, Mistake. Specific Performance of Contracts, Administration of Assets, Election, Account, Discovery, Injunction.

TEXT BOOK: Smith, H. A.

### SALES OF PERSONAL PROPERTY.

*Lecturer*.....PROFESSOR RUSSELL.

*One lecture per week.* Subjects of lectures, [1908-9]:

Capacity to buy and sell. Executed and executory contracts of sale. Statute of Frauds. Lord Tenterden's Act. Rules as to passing of property. Reservation of *jus disponendi*. Stoppage *in transitu*. Condition. Warranty, express and implied. Remedies of seller and buyer.

TEXT BOOK: Benjamin on Sales.

### NEGOTIABLE INSTRUMENTS

*Lecturer*.....PROFESSOR RUSSELL.

*One lecture per week.* Subjects of lectures, [1909-10]:

Formal Requisites, Consideration. Indorsement and Transfer Real and Personal Defence. Over-due Paper. Notice of Dishonor-Protest.

TEXT BOOK: McLaren on Bills.

### EVIDENCE

*Lecturer*.....GEORGE PATTERSON, A. M., LL. B., J. C. C.

*One lecture per week.* Subjects of lectures, [1908-9]:

Nature of proof. Production and effect of Evidence. Relevancy Instruments of Evidence.

TEXT BOOKS: Greenleaf on Evidence; Judicature Acts and Rules.

### PARTNERSHIP AND COMPANIES.

*Lecturer*.....W. B. WALLACE, LL. B., J. C. C.

*One lecture per week.* Subjects of lectures, [1909-10]:

Constitution. Liability of partners *inter se* and to third persons. Change of firm. Retirement of partners. Dissolution. Mining ventures. Joint-stock Companies. Canada Joint-stock Companies Act.

TEXT BOOK: Lindley on Partnership.

### PRACTICE AND PROCEDURE.

*Lecturer*.....MR. HECTOR MCINNES, LL. B.

Subjects of lectures:

Judicature Act and Rules, General Principles of Pleading, and Rules of Practice.

Candidates for the Degree of LL. B. are not required to attend lectures or take the examination in Procedure.

### TORTS.

*Lecturer*.....PROFESSOR WELDON.

*One lecture per week.* Subjects of lectures:

Definitions. Torts considered with reference to Crime and Contracts. Deceit. Slander and Libel. Malicious Prosecution Conspiracy. Assault and Battery. False Imprisonment. Enticement and Seduction. Trespass to Property. Conversion. Nuisance. Negligence.

TEXT BOOK: Bigelow, or Pollok.

### REAL PROPERTY (First Year.)

*Lecturer*.....MR. W. F. O'CONNOR, B. C. L., LL. B.

*One lecture per week.* Subjects of lectures:

Estates in lands. Seisin. Limitation of present and future estates in lands. Joint tenancies and tenancies in common. Equitable estates in lands.

TEXT BOOKS: Williams on Real Property, and Challis on Real Property.

### WILLS (Second Year.)

*Lecturer*.....MR. W. F. O'CONNOR, B. C. L., LL. B.

*One lecture per week.* Subjects of lectures:

Origin of Wills. The Statute of Frauds as affecting Wills. Form and characteristics of instrument. Personal disabilities of testators. What may be devised or bequeathed. Execution, publication, revocation and republication of Wills. The Wills Acts of the various Maritime Provinces. Probate Court practice.

TEXT BOOK: Hays and Jarman on Wills.

## Admission of Students.

(1.) Students may enter the University by (*a*) entering their name in the Register, and (*b*) paying the prescribed fees.

(2.) Students who wish to obtain University Degrees must become undergraduates. They may become undergraduates by (*a*) passing the Matriculation Examination of the Arts Faculty or a recognized equivalent, or (*b*) pro-

ducing certificates of Articled Clerkship, or the like, in cases where they rely on having passed the preliminary law examinations in their several provinces, and (*c*) entering their names on the Register as Undergraduates.

(3.) Students, who are not undergraduates, are classed as General Students.

## Degree of Bachelor of Laws.

(1.) All candidates for the Degree of LL. B., are required to pass the Matriculation Examination of the Arts Faculty, or a recognized equivalent, to attend not less than five-sixths of the lectures given in each subject of the Course of Study, to pass the prescribed Examinations in the subjects of the three years Course of Study, and to argue at least two cases in the Moot Court.

*Students presenting themselves for the first time to register as undergraduates in law must submit to the Dean their diplomas or certificates to establish their qualifications as graduates, undergraduates, or enrolled law students, respectively.. Without such diplomas or certificates students cannot be registered as Undergraduates in law.*

(2.) Undergraduates of other Law Schools, may on producing satisfactory certificates, be admitted to advanced standing in this Law School. But if their previous courses of study have not corresponded to the course on which they enter in this University, they may be required to take extra classes.

## Courses of Study for the Degree of LL. B.

### First Year.

1. Real property.
2. Crimes.
3. Contracts.
4. Torts.
5. Constitutional History.

### Second Year.

1. Equity.
2. Partnership and Companies.
3. Negotiable Instruments.
4. Constitutional Law.
5. Shipping.
6. Wills.

### Third Year.

1. International Law.
2. Conflict of Laws.
3. Evidence.
4. Equity.
5. Sales of Personal Property.

The Faculty urgently recommend that students devote their whole time during Sessions to the work of the School, experience having proved that students who undertake office work in addition to the work of their classes, receive comparatively little advantage from the lectures.

## Sessional Examinations.

(1.) The Sessional Examinations will begin next Session on February 18th, 1909.

(2.) Students are forbidden to bring any book or manuscript into the Examination Hall, except by direction of the Examiner, or to give or receive assistance, or to hold any communication with one another at the examinations. If a student violate this rule, he shall be excluded from the Sessional Examinations of the session, and such other penalty shall be imposed as the Faculty may determine.

(3.) If an Undergraduate fail to pass in one or two subjects at the Sessional Examination, he shall be allowed a supplementary examination in such subject or subjects at the beginning of any subsequent session.

(4.) If an Undergraduate fail to pass in more than two subjects at any Sessional Examination, he shall lose his Session.

(5.) Undergraduates who wish to present themselves at a Supplementary Examination must give notice addressed to the Secretary of the Faculty, Dalhousie Law School, Halifax, on or before August 26th, 1907.

(6.) Hereafter Supplementary Examinations shall be held but twice during the year, at the beginning of the Session and at the end.

(7.) The Supplementary Examinations for the present year will begin on September 1st, at 3 p. m. Fee $5, payable on the day of the Examinaiton.

## Moot Courts.

Moot Courts are held weekly.

The case to be argued is stated by the Professor or Lecturer who is to preside. Every candidate for a degree shall be required to take part in at least two arguments at the Moot Court. The senior counsel on either side shall file briefs with the Dean one day before the day on which the case is argued. A record is kept of the values assigned to the arguments made, and these values may be considered by the Faculty in recommending a candidate for his degree.

## Fees.

The following are the fees payable by students of the Faculty of Law. *They are in all cases payable in advance.*

Students are requested to pay their Class Fees and sign the University Register on Tuesday, 1st September, 1908, in the office of the Law School.

| | |
|---|---|
| Registration Fee, payable only by General Students | $ 2 00 |
| Registration after September 22nd, additional fee | 1 00 |
| Fee for each class attended, per Session, payable by General Students | 10 00 |
| Fee for each class attended, per Session, payable by students of the Affiliated Course | 6 00 |
| Fee for classes of the First Year, payable by undergraduates | 40 00 |
| Fee for the classes of the Second Year, payable by undergraduates | 40 00 |
| Fee for the classes of the Third Year, payable by undergraduates | 40 00 |
| Fee for LL. B. diploma, which is payable before the final examination, and will be returned in case of failure | 10 00 |
| Fee for the Supplementary Examination | 5 00 |

Students of any year are permitted to attend lectures in the subjects of an earlier year without extra charge.

*Students will not hereafter be admitted to the Lecture Rooms unless they have paid their class fees.*

# Faculty of Medicine.

THE PRESIDENT, (*ex officio.*)

| | |
|---|---|
| GEORGE L. SINCLAIR, M. D. | MURDOCH CHISHOLM, M. D. |
| A. W. H. LINDSAY, M. D., C. M. | NORMAN F. CUNNINGHAM, M. D. |
| ANDREW J. COWIE, M. D. | JOHN W. MACKAY, M. D. |
| ALEXANDER P. REID, M. D. | A. STANLEY MACKENZIE, PH. D. |
| MATTHEW A. CURRY, M. D. | E. V. HOGAN, M. D. |
| LOUIS M. SILVER, M. B., C. M. | J. G. MCDOUGALL, M. D., C. M. |
| F. U. ANDERSON, M. R. C. S., Eng. | DANIEL MCINTOSH, M. D. |
| EBENEZER MACKAY, Ph. D. | W. B. MOORE, M. D., C. M. |
| WILLIAM H. HATTIE, M. D. | R. A. H. MCKEEN, M. D. |
| GEORGE M. CAMPBELL, M. D. | A. L. MCCALLUM, B. SC. |
| NORMAN E. MACKAY, M. D. | A. F. BUCKLEY, M. D., C. M. |
| H. H. MACKAY, M. D. | F. R. HALEY, M. A. |

*Dean of the Faculty:* DR. SINCLAIR.

*Secretary of the Faculty:* DR. LINDSAY.

Correspondence should be addressed:

*The Secretary, Faculty of Medicine,*
*Dalhousie College, Halifax.*

# COURSES OF INSTRUCTION*

1. Instruction is provided by the University in the following subjects of the Medical Curriculum:—

## I.—CHEMISTRY.

*(McLeod Professorship).*

*Professor* ..... E. MACKAY, PH. D
*Demonstrator* ..... G. J. MACKAY, M. A.

Medical students will be required to attend the University Courses in Chemistry known as **1 A** and **3**, as follows:

**1 A.** GENERAL CHEMISTRY.—*Mondays, Wednesdays and Fridays, 9—10 A. M.*

Measurements of mass, volume, pressure, temperature, heat; solids and liquids; gases and gas laws; melting-points, boiling-

*It is to be distinctly understood that the program and regulations regarding courses of study and examinations contained in this Calendar hold good for year ending April 30, 1909 only, and that the Faculty, while fully sensible of its obligations towards the students, does not hold itself bound to adhere absolutely for the entire period of a student's course to the conditions now laid down.

points, solution, crystallization. Preparation and properties of common acids and alkalies; combustion, air, water, oxygen, hydrogen; fundamental laws of combination, atomic theory, Avogadro's law, formulæ, equations; chlorine; sulphur; halogen group; nitrogen, argon; nitrogen group; carbon; dissociation, mass action; valence; periodic law; isomorphism; electrolytic dissociation; potassium, sodium, ammonium; silver, copper, gold; electrolysis; atomic heat; calcium, strontium, barium; magnesium, zinc, cadium, mercury; thermo-chemistry; boron; aluminium; carbon group; chromium; manganese; iron, nickel, cobalt, platinum. Some common organic compounds.

The lectures are illustrated as fully as possible by experiments. A tutorial class, attendance on which is in general optional, meets on Friday afternoons.

Every student is required to devote at least three hours a week to laboratory work.

The laboratory work is designed to make the student familiar with ordinary laboratory operations and to lead him to solve simple problems in chemistry by experiment. Several common inorganic substances are prepared and studied; simple quantitative experiments leading to the fundamental laws of chemistry are performed; and some time is devoted to elementary work in qualitative analysis.

BOOK RECOMMENDED: Smith, *General Inorganic Chemistry* (Century Co.)

**3.** MEDICAL CHEMISTRY.—*Autumn term: Saturdays, 9—10 A. M. Spring term: Tuesdays, Thursdays and Saturdays, 9—10 A. M. Laboratory: Tuesdays and Thursdays, 10—11 A. M., Fridays, 11 A. M.—12 M.*

Students entering this class must have taken Chemistry 1 A, or an equivalent class in chemistry.

*Class Work.*—The subjects of study in the class include pure chemistry and the applications of chemistry to medicine.

Pure Chemistry: Review of the chemistry of the metals, noting especially compounds having medicinal or toxic properties, compounds of carbon—their purification and analysis; the paraffins and their chief derivatives; ethylene; acetylene; benzene and its chief derivatives.

Medical Chemistry: Air; water, its sanitary analysis and purification; adulteration of foods; the proximate principles of the body and of food; typical foodstuffs—as milk, flour, bread, meat; the blood; the digestive fluids and digestion; urine.

*Laboratory Work.*—All members of the class are required to devote at least three hours a week to laboratory work. This will consist of qualitative analysis, including the detection of the more commonly occurring poisons, the detection of adulterations in milk, simple quantitative exercises in the analysis of air and water, and the quantitative estimation of glucose, albumen and urea.

BOOKS RECOMMENDED: Remsen, *Compounds of Carbon, 4th edition* (D. C. Heath & Co.); F. M. Perkin, *Qualitative Chemical Analysis,* (Longmans.)

CHEMICAL LABORATORY.

The general laboratory is open to students in Medicine from 10 to 11 a. m., on Mondays, Tuesdays, Wednesdays and Thursdays, and from 10 a. m. to 12 m., on Fridays.

Laboratory students are allowed the use of all the more inexpensive reagents. They are required to provide themselves with the more expensive reagents as alcohol and ether, and they are charged with the value of the apparatus they have broken or injured.

All members of practical classes are required to keep a detailed record of their laboratory work. The character of this record is a factor in determining the standing of a student in the class lists.

## II.—BIOLOGY.

*Lecturer*.....

*Tuesdays, 2—4 P. M., Saturdays, 9—11 A. M.*

BOTANY.—The course in Botany will have special reference to the following subjects: Protoplasm and Plant-cells, the Tissue and Tissue Systems of Plants, Morphology of the Plant-body, Plant Physiology, the Principles of Classification and the Laws of Distinction, the Protophyta (Schizophyceæ), the Phycophyta (Chlorophyceæ and Phæophyceæ), the Carpophyta (Rhodophyceæ, Ascomyceteæ and Basidiomyceteæ specially), the Bryophyta (Mosses and Liverworts), the Pteridophyta (Ferns, Horsetails and Club-mosses), the Anthophyta (specially the Coniferæ, Gramineæ, Orchidaceæ, Liliaceæ, Urticaceæ, Labiatæ, Compositæ. Umbelliferæ, Rosaceæ, Cruciferæ, Leguminosæ, Ranunculaceæ). The Morphology and life history (the anatomy, histology, and development) of at least two common or representative species of each group of plants above named, in minute detail.

General attention will be given to the native flora of the Province, with special notice of foreign as well as native species of interest from economic, medicinal or injurious properties.

The preliminary study in Botany as indicated in Grade IX. of the Public School Course, and especially the formation of a local collection of plants, even if unnamed and unclassified, will be an advantage to any student entering upon the course.

Practical instruction will be given in the collecting, drying and mounting of specimens, the use of the microscope, the preparing of microscopic sections, and the general dissection of plants. The use in class of a number of microscopes will be granted the students under the care and direction of the Lecturer; but a hand lens, glass slides, cover glasses, scalpels and other apparatus or books necessary for each student, should be supplied by each for himself. Collections, notes, class-work and drawings will be estimated for incorporation into final class standing.

TEXT BOOKS: *Principles of Botany*, by Bergen and Davis (Ginn & Co); *High School Text of Botany*, Maccun and Spotton.

FOR REFERENCE: Special text books will be recommended in each sub-division of the subject during the course of the lectures and demonstrations.

ZOOLOGY.—The course in Zoology will consist of lectures supplemented by practical work.

The student will be expected to master the system of Zoology parallel with the course of lectures expounding zoological principles and sketching local distribution of species and genera, and with the life-study or dissections of local species under the microscope or scalpel as follows:

1. Five specimens of the local lobosa; 2. One species each from any five of the following: The Foraminifera, Heliozoa, Radiolaria, as contained in Shipley and McBride's Elementary Text-Book.

Flagellata, Choanoflagellata, Dinoflagellata, Paramoecium, Vorticella, Sporozoa; 3. Three species of marine, and three of freshwater Sponges; 4. One species each of Hydra: the Campanularidæ, Plumularidæ, and Sertularidæ; Aurelia, Metridium; and the skeletons of Zoantharia and Alcyonaria; 5. A species each of the Platyhelminths and of the Nemathelminths; 6. Five species of local freshwater and marine Polyzoa and a Rotifer; 7. The common Starfish; 8. The common Sea-Urchin; 9. An Earthworm; 10. A Lobster; 11. Entomostraca in water supply, and dissection of Grasshopper in detail; 12. Oyster, Clam, or Mussel; 13. A Trout, Smelt, Herring or Cod. (Or No. 16 in full detail); 14. A Frog. (Or No. 16 in full detail); 15. A Pigeon. (Or No. 16 in full detail); 16. A Rabbit. (If in full detail for 12, 13, 14 and 15.) The scarcity of any of the above during the season, or the abundance of other species may modify the list of species for dissection or life-study as may suit the circumstances most conveniently.

### III.—MEDICAL PHYSICS

*Professor* .....A. STANLEY MACKENZIE, PH. D.
*Demonstrator* .....

*Mondays, Wednesdays and Fridays, 11 A. M.—12 M.*

There is no class given for Medical students only. They must attend the regular University course in Physics known as,

**1.** GENERAL PHYSICS.—In the work of this course a rapid survey of the whole subject of Experimental Physics is taken, the subjects treated being: Dynamics, Properties of Solids and Fluids, Sound, Heat, Electricity and Magnetism, Light and other forms of Radiation. The course is fully illustrated by experiments, and special attention is paid to the solution of problems, all students being required to hand in papers for correction and criticism. In the earlier part of this course especially, Medical students will be excused from attendance on days to be assigned in advance.

PRACTICAL PHYSICS (Medical).—In order to meet the new requirements of the Medical Faculty, a two-hours laboratory course will be conducted once a week for medical students. More definite announcement of the work will be made at the opening of the Session.

BOOKS RECOMMENDED: Watson, *Physics;* Jones, *Heat, Light and Sound;* Cumming, *Electricity treated experimentally.*

2. Students wishing to attend the above courses may do so either as General Medical Students without preliminary examination, or as regular Undergraduates in Medicine. In either case they must enter their names in the University Register at the beginning of the Session. By reference to pps. 21, 23 and 24, Undergraduates in Arts and Science will see how they may at the same time be registered with the Medical Faculty and secure the benefit of certain classes of the Arts and Science Courses, as regular Undergraduates in Medicine.

3. In other subjects the necessary classes may be attended at any other University or College recognized by the Senate.

4. Except as hereinafter specified,* attendance on classes by those registered as General Medical Students will not qualify for Degree Examinations in this Faculty.

5. Certificates indicating less than 90 per cent. of attendance upon any class will not be accepted without valid reason for absence being shown.

## The Academic Year.

The Academic Year consists of one session of eight months' duration. The session of 1908-1909 will begin on Thursday, August 27th, 1908, and end on Thursday, April 29th, 1909.

## Degrees.

Two Medical Degrees are conferred by this University, viz., Doctor of Medicine (M. D.) and Master of Surgery (C. M.); but neither degree is conferred on any person who does not at the same time obtain the other.

## Matriculation Examination.

1. Candidates for medical degrees must give evidence of having obtained a satisfactory general education, by presenting certificates of having passed, before entering on the course of study qualifying for the degrees, either the Preliminary Examination of the Provincial Medical Board of Nova Scotia, the Junior Matriculation Examination of this University, with Latin as one of the languages selected, or some other examination recognized by the Board as sufficient,† and of having completed their sixteenth year before the passing of such examination.

2. The examinations recognized *pro tanto* by the Provincial Medical Board will be similarly recognized by this Faculty.

3. Candidates who may have passed in all but one of the subjects required for the Preliminary Examination of the Provincial Medical Board either before the Board's Examiners or at any of the recognized Examinations indicated above, provided they shall have made at least 25% in such subject, may enter as undergraduates, but will subsequently be required to comply with the Board's regulations as regards the remaining subject of examination before being admitted to the classes of the second year.

---

*See page 101 (2) *a*.

† All information in reference to Requirements for the Preliminary Examination of the Provincial Medical Board, Exemptions, etc., may be obtained on application to the Registrar of the Board, Dr. A. W. H. Lindsay, 241 Pleasant Street, Halifax.

## Degree Examinations.

1. Candidates for the degrees of M. D. and C. M., who began the study of medicine previous to July 1, 1908, will be required to pass two main examinations—the Primary and the final M. D., C. M. Examinations; candidates who begin study subsequent to July 1, 1908, will be required to pass a "Professional Examination" at the end of each year.

2. All candidates for examinations must enter their names in the University Register at the beginning of session.* They will be required to satisfy at the dates of the examinations certain conditions as to fees, attendance on classes, etc. Tickets of admission will be issued to all candidates who have complied with these requirements of the Faculty, which tickets shall be produced at each examination.

3. The Regular Degree Examinations will be held during the second and third weeks in April of each year.

4. At *all* examinations a minimum of 50% in each subject† will be required to obtain a *"Pass,"* except under the conditions specified on p. 110, sec. 4. Candidates making 75% or over in any subject shall be indicated in the published class lists as having *"Passed with distinction."* The names in the two divisions of the class lists and in the general pass lists shall be placed in simple alphabetical order.

5. Should a candidate fail to pass or to hand in a paper in any subject or subjects at the Regular Examinations, his fee will not be returned to him, but he will be permitted a *supplementary* examination in any subject or subjects on payment of $5.00 for each subject, with or without evidence of further attendance on said subject or subjects as the Faculty may direct.

6. A candidate who has been prevented by exceptional circumstances from presenting himself at the Regular Examination may by special permission of the Faculty be allowed a *special* examination, but such examination shall only be allowed at the dates specified in the University Almanac for the supplimentary examinations, and the fee shall be $5.00 for each subject of examination.

---

*Fee for persons registering before Sept. 22, two dollars; subsequent to Sept. 22, three dollars.

†In Chemistry and in Physics the same percentage will be required of Medical Students as of other students in these subjects, viz.: 40%.

7. Candidates are not permitted to present themselves for examination in selected subjects, but are required to take each section (or each "Professional Examination)" as hereafter defined (pp. 100, 101, 103, 106) as a whole, except (*a*) Candidates obtaining the special permission of the Faculty; (*b*) Students taking one of the affiliated courses (p. 97, sub. sec. 2).

In either case the fee will be $5.00 for each subject, and such examination shall only be allowed at the dates specified in the University Almanac for the supplementary or the regular examinations.

8. Candidates who have been granted supplementary examinations, will be required to pay the examination fee whether they take the examination in the Autumn or at the time of the regular April examinations.

NOTE.—The following regulations regarding the Primary and Final Examinations apply to students who began the study of medicine previous to July 1st, 1908.

## Primary M. D., C. M. Examination.*

1. This examination shall consist of two parts as follows:—

(A) PRIMARY EXAMINATION, SECT. A.

1. This examination shall include Anatomy, Chemistry, Elementary Biology, and Medical Physics, to the extent indicated in the following synopsis:—

**ANATOMY.**

A written examination on Osteology, including general physical characters, chemical composition and coarse structure of bone, ossification. Arthrology; classification of Joints, structure and mechanism of the most important (hip, knee, shoulder, elbow, ankle, etc.)

**CHEMISTRY.**

Elementary general chemistry, as in the course outlined on pp. 94, 95.

**BIOLOGY.**

Candidates will be expected to show a practical acquaintance with the topics indicated as forming the subject matter of the courses of lectures and instruction in Botany and Zoology, outlined at pp. 96, 97.

**MEDICAL PHYSICS.**

A written examination on the subject matter included in the course on General Physics as limited for Medical Students, as indicated at p. 97.

(2.) Candidates for this examination will be required to produce certificates to the following effect:

* See foot-note, p. 94.

*a*) Of having, either before or after passing the Preliminary Examination or other equivalent examination attended either at this University, or at some other University or College approved by the Senate, the following courses of lectures and instruction, viz., *Chemistry,* a course of at least 75 lectures with a laboratory course of not less than three hours per week for six months; *Biology,* a course of at least 100 hours of lectures and laboratory work; *Medical Physics,* a course of at least 50 lectures.

*b*) Of having, after passing the Preliminary Examination or other equivalent examination, attended either in this University, or in some other University or College approved by the Senate, during at least one medical session of eight months duration a course in *Anatomy, (Osteology and Arthrology)* of at least 75 lectures and demonstrations with 10 hours laboratory work per week for six months.

(3) Exemption from examination in any or all of these subjects may be allowed on production of satisfactory certificates.

(B) PRIMARY EXAMINATION, SECT. B.

1. This examination shall include Anatomy, Physiology and Histology, and Chemistry, to the extent indicated in the following synopsis:—

**ANATOMY.**

This examination will be partly written and partly *viva voce.* The paper may include questions in Descriptive and Regional Anatomy, Surgical and Medical Anatomy. At the oral examination, candidates will be examined on the skeleton, recent dissections, models, preparations, etc.

**PHYSIOLOGY AND HISTOLOGY.**

A written and an oral examination on: (*a*) The physiology of digestion, absorption, circulation, respiration, secretion, nutrition, animal heat, animal motion; the functions of the nervous system and sense organs; reproduction and development.

(*b*) The composition of food, and of the the tissues, secretions, excretions and other fluids of the body.

(*c*) Histology.

At the oral examinations, microscopical preparations of the tissues and organs of the body will also be submitted for indentification and description.

**CHEMISTRY.**

Inorganic, organic and medical chemistry as in the course of the Medical Chemistry Class, outlined on page 95. The examination will inclued (*a*) A written paper. (*b*) A practical examination in the laboratory. (*c*) An oral examination, in which questions may be put to candidates upon the entire work of the Junior and Senior courses.

(2) Candidates for this examination will be required to produce certificates to the following effect:

(*a*) Of having passed the Preliminary Examination, or other examination recognized as sufficient, at least two academic years previously.

(*b*) Of having passed in the subjects of the first part of the Primary Examination either at this University or at some other University or College recognized by the Senate.

(c) Of having after passing the Preliminary Examination or other equivalent examination, attended either in this University, or in some other University or College approved by the Senate, during at least two medical sessions each of eight months' duration, the following courses of lectures and instruction, in addition to those prescribed for Sect. A. of the Primary Examination, (p. 101), viz.: *Senior Anatomy,* a course of at least 75 lectures and demonstrations with 10 hours laboratory work per week for six months*; *Senior Chemistry,* a course in Organic and Medical Chemistry of 50 lectures with a laboratory course of not less than 3 hours per week for six months; *Physiology,* a course of at least 75 lectures; *Histology,* a course of at least 100 hours of lectures and laboratory work.

(3) (*a*) Candidates who have not passed Sect. A. of the Primary Examination may, by special permission of the Faculty, be allowed to complete their Primary Examination in both sections at the same time.

(*b*) Exemption from Examination in any or all of the subjects† of the Primary Examination, may be allowed on production of satisfactory certificates.

2 The Primary M. D., C. M. Examination will be held in the second and third weeks in April. Candidates are required to hand in their applications and to transmit as far as possible the certificates specified above for Sect. A or Sect. B, as the case may be, to the Secretary of the Faculty at least fourteen days before the date of the examination, and the remainder of the required certificates not less than two days before the date of the examination, to enter their names in the Register of Undergraduates of the University before the date of the examination, and to pay before the date of the examination, one-sixth of the amount of the graduation fee in the case of candidates for Section A, and one-third the amount of the graduation fee in the case of candidates for Section B.

*On completion of their course in Practical Anatomy candidates will be required to show by certificate that they have satisfactorily dissected each of the "parts" of the body twice.

†Candidates exempted from Sect. A of the Primary Examination will be required to pay one-half of the graduation fee before being admitted to Sect. B.

## Final M. D., C. M. Examination.*

This examination shall also consist of two parts as follows:

(A) FINAL EXAMINATION, SECT. A.

(1) This examination will include the following subjects:—Materia Medica, Pharmacy and Therapeutics; Pathology and Bacteriology.

**MATERIA MEDICA, PHARMACY AND THERAPEUTICS.**

This examination will be partly written and partly oral. Candidates will require to possess a knowledge of:—

(*a*) The general nature and composition, and the most important physical and chemical characters of the Pharmacopœial drugs, named in the annexed Schedule.

(*b*) The composition of the Pharmacopœial prepartions of these drugs, and the process employed in making them.

(*c*) The doses, therapeutical uses and modes of administration of these drugs and their preparations; writing prescriptions.

At the *oral* examination, candidates will also be required to recognize the drugs indicated by *italics* in the annexed Schedule.

*Calx Chlorinata*: Liquor Sodæ Chlorinatæ.

Ammonii Bromidum; *Potassii Bromidum;* Sodii Bromidum.

*Iodum; Potassii Iodidum;* Sodii Iodidum; Plumbi Iodidum.

*Sulphur Sublimatum; Sulphur Praeciptatum;* Calx Sulphurata; Potassa Sulphurata.

*Phosphorus;* Calcii Phosphas; Sodii Phosphas; *Ferri Phosphas;* Calcii Hypophosphis; Sodii Hypophosphis.

Acidum Hydrochloricum; Acidum Nitricum; Acidum Sulphuricum.

Acidum Aceticum; Acidum Citricum; Acidum Tartaricum.

Acidum Boricum; Acidum Sulphurosum.

*Acidum Hydrocyanicum Dilutum.*

Liquor Ammoniæ; Liquor Potassæ; Potassa Caustica.

*Ammonii Carbonas; Ammonii Chloridum;* Liquor Ammonii Acetatis.

Potassii Bicarbonas; Potassii Sulphas; Potassii Chloras; Potassii Tartras Acidus; *Potassii Permanganas.*

Sodii Bicarbonas; Sodii Sulphas; Sodii Nitras; Borax.

Calx; Calcii Hydras; Creta Præparata; Calcii Carbonas Præcipitatus.

Magnesia; Magnesii Carbonas; *Magnesii Sulphas.*

*Alumen; Alumen Exsiccatum.*

Zinci Oxidum; Zinci Chloridum; *Zinci Sulphas.*

*Cupri Sulphas.*

Argenti Nitras.

*Hydrargyrum; Hydrargyri Oxidum Flavum; Hydrargyri Oxidum Rubrum; Hydrargyri Subchloridum; Hydrargyri Perchloridum; Hydrargyri Iodidum Rubrum;* Hydrargyri Ammoniatum.

Hydrargyri Oleas; Liquor Hydrargyri Nitratis Acidus.

---

* See foot-note, p. 94.

*Plumbi Oxidum; Plumbi Acetas;* Liquor Plumbi Subacetatis *Fortis.*
Antimonium Tartaratum.
*Acidum Arseniosum; Ferri Arsenias;* Sodii Arsenias; Arsenii Iodidum; Liquor Arsenii et Hydrargyri Iodidi.
Bismuthi Subnitras; Bismuthi Carbonas; Bismuthi Salicylas.
Ferrum; *Ferri Sulphas;* Ferri Sulphas Exsiccatus; *Ferri Carbonas Saccharatus;* Syrupus Ferri Iodidi; Liquor Ferri Acetatis; Liquor Ferri Perchloridi; Liquor Ferri Pernitratis; Liquor Ferri Persulphatis; *Ferri et Ammonii Citras; Ferri et Quininae Citras; Ferrum Tartaratum; Ferrum Redactum.*
Alcohol Absolutum; *Spiritus Rectificatus.*
*Æther; Chloroformum; Iodoformum.*
*Chloral Hydras;* Butyl Chloral Hydras; *Paraldehydum;* Sulphonal.
Amyl Nitris; Tabellæ Trinitrini; Liquor Trinitrini; *Spiritus Ætheris Nitrosi.*
Acetanilidum; Phenacetin; Phenazonum.
Collodium.
*Creosotum; Acidum Carbolicum; Acidum Salicylicum;* Sodii Salicylas; Salol.
*Aconiti Radix;* Aconitina.
*Opium;* Morphinæ Hydrochloridum; Morphinæ Acetas; Morphinæ Tartras; Apomorphinæ Hydrochloridum; Codeina; Codeinæ Phosphas.
*Cocae Folia;* Cocaine; Cocainæ Hydrochloras.
*Jaborandi Folia;* Pilocarpinæ Nitras.
*Quassiae Lignum; Calumbae Radix; Gentianae Radix.*
*Physostimatis Semina;* Physostigminæ Sulphas.
Caffeina; Caffeinæ Citras.
*Conii Fructus* et Folia.
*Asafoetida; Ammoniacum; Myrrha; Guaiaci Resina.*
*Cinchonae Rubrae Cortex; Quininae Sulphas;* Quininæ Hydrochloridum; Quininæ Hydrochloridum Acidum.
Salicinum.
*Ipecacuanhae Radix; Senegae Radix.*
*Glycerinum.*
*Nux Vomica; Strychnina;* Strychninæ Hydrochloridum.
*Belladonnae Radix* et Folia; Atropina; Atropinæ Sulphas; Hyoscyami Folia; *Stramonii Semina* et Folia; Homatropinæ Hydrobromidum.
*Cannabis Indica.*
Oleum Ricini; Oleum Crotonis; *Aloe Barbadensis; Aloe Socotrina; Alonium; Cascara Sagrada; Colocynthidis Pulpa; Elaterium;* Elaterinum; *Jalapa; Podophylli Rhizoma; Rhei Radix; Senna Alexandrina et Indica; Camphora; Oleum Terebinthinae.*
*Acidum Tannicum; Acidum Gallicum; Kino; Catechu;* Hamamelidis Cortex et Folia.
*Acidum Benzoicum.*
*Copaiba; Cubebae Fructus.*
*Colchici Cormus* et Semina.
*Scilla.*
*Filix Mas, Santoninum.*
*Ergota.*
*Oleum Morrhuae.*
*Cantharis.*

**PATHOLOGY AND BACTERIOLOGY.**

**The examination will be partly written, and partly *viva v .e.* Candidates will be expected to possess a knowledge of:—**

**(*a*) *General Pathology*, including Degenerative Processes, Inflammation, Morbid Growths, etc.**

**(*b*) *General Etiology*, with reference to Parasitic and Infective Diseases.**

**(*c*) *Systematic Pathology*, the more important diseases of the principal systems and organs of the body.**

**(*d*) *Bacteriology*, to include the General Morphology and Life History of Micro-Organisms; Characters of Organisms Pathogenic to the Human Subject, and their modes of producing diseases, etc.**

**At the oral examination candidates will be examined on gross and microscopical preparations, and will be expected to possess a knowledge of the preparation of Culture Media, Methods of Isolation and Cultivation, Staining, Separation of Bacterial Products, Inoculation.**

(2) Candidates for this examination will be required to furnish certificates to the following effect, viz.:—

(*a*) Of having passed the Preliminary Examination, or other examination recognized as sufficient, at least three academic years previouslv.

(*b*) Of having passed the Primary M. D., C. M. Examination at this University, or of having passed an equivalent examination at some other University or College recognized by the Senate.

(c) Of having, after passing the Preliminary Examination or other equivalent examination, attended at some University or College approved by the Senate, during at least three medical sessions, each of eight months' duration, the following courses of lectures and instruction, in addition to those prescribed for the Primary Examination, (pp. 101, 102), viz.:—*Materia Medica,* a course of at least 75 lectures; *Therapeutics,* a course of at least 25 lectures; *Pathology and Bacteriology,* a course of at least 150 hours of lectures, demonstrations and laboratory work.

(*d*) Of having, after passing the Preliminary Examination, or other equivalent examination, attended at some University or College, approved by the Senate, one course of instruction of at least thirty lessons in Practical Dispensing, or under the same conditions had three months practice in the dispensing of drugs with a registered apothecary or dispensing medical practitioner.

## (B) Final Examination, Sect. B.

(1) This examination will include the following subjects:—Medical Jurisprudence and Insanity and Hygiene, Surgery, Clinical Surgery, Medicine, Clinical Medicine, Obstetrics and Diseases of Women and Children.

### MEDICAL JURISPRUDENCE AND INSANITY, AND HYGIENE.

The examination will be partly written, partly oral. Candidates will be examined on the following topics:—

#### Forensic Medicine.

I. Examination of Persons found Dead, with reference to:—(1) Identification; (2) Time of Death; (3) Cause of Death.

II. Violent causes of Death:—(1) Drowning; (2) Strangulation.

III. Poisons and Poisoning:—(1) Symptoms and post mortem appearances in cases of poisoning by the following agents: Inorganic—Mineral Acids; Solutions of Alkalis; Copper; Lead; Mercury; Antimony; Arsenic; Phosphorus. Organic—Oxalic Acid; Carbolic Acid; Opium; Strychnine; Belladonna; Aconite; Chloroform; Chloral Hydrate; Cyanides. (2) Duties of Medical men in cases of Poisoning as regards:—Observation; Treatment and Preservation of parts for Analysis. (3) Preliminary Tests for Poisonous Substances for Clinical Use before reference to an Analyst.

IV. Medico-legal points in connection with:—Pregnancy, Delivery, Rape, Criminal Abortion, Infanticide, Assaults and Homicide, Wounds and other external Injuries; Mental Capacity in relation to Criminal Responsibility, Contracts and Wills; Malpractice, and Neglect of Duty.

V. Forms of Insanity. Examinations of persons supposed to be insane. The Lunacy Laws in so far as they affect the Medical Practitioner when signing Certificates of Lunacy.

#### Hygiene.

I. Water, in its relation to Health and Disease:—(1) The Character and Classification of Drinking Water. (2) The Causes and Sources of the Impurities found in Water and Methods of Purification. (3) The Diseases conveyed by Water, and the Methods of dealing with Epidemics of such Diseases.

II. Air, in relation to Health and Disease:—(1) The Causes and Sources of the Impurities found in Air. (2) The Diseases conveyed through the Air. (3) The quantity of Air necessary for Health; the Principles of Ventilation.

III. Soil, in relation to Health and Disease:—(1) The Causes and Sources of the Impurities in the Soil, and the Methods of dealing with them. (2) Diseases connected with the Soil. (3) The Methods of dealing with Excreta and Sewage.

IV. Food, in relation to Health and Disease:—(1) Dietetics. (2) The common Adulterations of the Chief Articles of Diet. (3) Diseases connected with Deficiency or Impurity of Food-supply.

V. The Dwelling, in relation to Health and Disease:—The Principles of House Drainage.

VI. The Principles of Disinfection, and the mode of Action of the chief Disinfecting Agents.

VII. The Provisions of "The Act for the Notification of Disease."

**SURGERY.**

The examination in this subject will be partly written and partly viva voce. The candidates will be expected to possess a knowledge of the Principles and Practice of Surgery, of Surgical Pathology, Surgical Anatomy, and Operative Surgery. They will also be examined on the more common Diseases of the Skin, of the Eye, Ear, Throat and Nose.

**CLINICAL SURGERY.**

This examination will be partly practical and partly oral. Cases will be submitted for diagnosis and treatment. Pathological specimens may be exhibited for identification. Candidates will also be examined on the application of Splints and Bandages, and on the uses of Surgical Instruments and Appliances.

**MEDICINE.**

In this subject there will be a written and an oral examination on the Clinical History, Causes, Diagnosis, Prognosis and Treatment of the Diseases of the different Systems and Organs of the Body. The examination will also include Infectious Diseases, Constitutional Diseases, Mental Diseases, and Diseases of the Nervous System. Candidates may also be questioned on Medical Anatomy and on Therapeutics.

**CLINICAL MEDICINE.**

The examination in Clinical Medicine will be partly practical and partly oral. Patients will be submitted for Examination, Diagnosis and Treatment. Examination of specimens of Urine, Sputa, etc., will be required.

**OBSTETRICS AND DISEASES OF WOMEN AND CHILDREN**

In these subjects there will be a written and an oral examination, which will embrace the following:—

(a) The Anatomy and the Physiology of the Female Organs of Reproduction.

(b) The Physiology, Pathology and Therapeutics of Pregnancy.

(c) Parturition, natural and morbid.

(d) Hygiene, Pathology and Therapeutics of the Puerperal State.

(e) Hygiene, Pathology and Therapeutics of Infancy and Childhood.

(f) Special Pathology and Therapeutics of the Female Organs of Reproduction.

At the oral Examination, candidates may also be questioned on Gynæcological Operations and the use of Instruments and Appliances.

(2) Candidates for this examination will be required to furnish certificates to the following effect, viz.:—

(*a*) That they have completed their twenty-first year, or that they will have done so, on or before the day of graduation. This certificate shall be signed by themselves, and shall be after the following form:

HALIFAX....., 19..

I, the undersigned, being desirous of obtaining the Degrees of Doctor of Medicine and Master of Surgery, do hereby declare that I have attained the age of twenty-one years (or if the case be otherwise, that I shall have attained the age of twenty-one years before the next graduation day).

Signed, A. B.

(*b*) Of having passed the Preliminary Examination, or other equivalent examination, at last four academic years previously.

(*c*) Of having passed the Primary M. D., C. M. Examination at this University, or having passed an equivalent examination at some other University or College recognized by the Senate;

(*d*) Of having passed the First part (Sect. A) of the Final Examination at this University;

(*e*) Of having, after passing the Preliminary Examination or other equivalent examination, fulfilled the following requirements:

*a.* Attended at some University or College recognized by the Senate, during at least four academic years, each of at least 8 months' duration, two courses of at least 75 lectures each in each of the following, in addition to the subjects prescribed (pp. 101, 102, 105), viz. *Surgery, Medicine, Obstetrics and Diseases of Women and Children, Clinical Surgery, Clinical Medicine;* one course of at least 50 lectures and demonstrations in *Medical Jurisprudence* (*including Insanity*); and one course of at least 25 lectures and demonstrations in *Hygiene,* and the same in *Ophthalmology Otolgy and Laryngology;*

*β.* Attended at some University or College recognized by the Senate, a course of at least 25 hours in Operative Surgery, and of having performed operations on the dead body to the satisfaction of the Teacher*;

*γ.* Attended during at least eighteen months the practice of the Victoria General Hospital, or that of some other

*Blank certificates will be issued to candidates which must be filled out and signed by the proper authority.

General Hospital approved by the Senate, or attended such hospital practice for twelve months with at least six months additional attendance on the practice of a recognizd Dispensary, or of the out-patient department of an approved Hospital;

δ. Attended at a recognized Hospital or Dispensary courses of practical instruction of at least 25 lessons or demonstrations each, in Medicine and in Surgery, including:—the methods of examining various organs and other parts of the body, in order to detect the evidence of disease or the effect of accidents, the employment of instruments and apparatus used in diagnosis or treatment, the examination of the Urine and other secretions, and of morbid products;

ε. Served at least three months as a dresser in the Surgical wards, and three months as a Clinical Clerk in the Medical wards of a recognized Hospital, and reported at least 10 Medical and 10 Surgical cases, or having done other equivalent practical work in Surgery and Medicine*;

ζ. Attended at least four cases of mid-wifery, under a recognized practitioner*;

η. Attended the Post Mortem Examinations in a recognized Hospital for a period of at least six months, during which they received practical instruction in the methods of making Post Mortem Examinations and in framing Reports; such certificates to be accompanied by reports of at least six autopsies which the candidate has attended.

θ. Received instruction and attained proficiency in the practice of Vaccination, under a recognized medical practitioner.*

(3) Candidates who have not passed Sect. A of the Final Examination, may, by *special* permission of the Faculty, be allowed to complete their Final Examination in both sections at the same time.

2 The Final M. D., C. M. Examination will be held in the second and third weeks in April. Candidates are required to hand in their applications and to transmit as far as possible the certificates specified above for Section A or Section B, as the case may be, to the Secretary of the Faculty, at least fourteen days before the date of the examination, and the remainder of the required certificates

*Blank certificates will be issued to candidates which must be filled out and signed by the proper authorities.

not less than two days before the date of the Examination, and to enter their names in the register of undergraduates before the date of the examination, and to pay before the date of the examination, one-sixth of the amount of the graduation fee in case of candidates for Section A, and one-third of the graduation fee in the case of candidates for Section B.

3. Candidates who may have been exempted from passing the Primary Examination under the provisions on p. 102, sub section (3) (*b*) will be required to pay the balance of the full graduation fee before being admitted to the last part of the Final Examination.

4. A candidate having failed to make 50% in any subject of Section B of the final Examination will also be required to pass again in any other subject in which he may have made less than 60% with or without evidence of further attendance on such subject or subjects as the Faculty, in their discretion may determine. At all such Supplementary Examinations candidates are required to make at least 60% in each subject.

## Medals and Prizes.

MEDICAL FACULTY MEDAL.—This medal will be awarded on graduation to the student who stands first at the Final M. D., C. M. Examination (Section B), provided he shall have obtained distinction in at least four of the six subjects of examination.

DR. LINDSAY'S PRIZE.—A prize of Books will be awarded to the student who stands first among those taking Section B of the Primary M. D., C. M. Examination, provided he shall have obtained distinction in at least two of the three subjects of examination.

## Sponsio Academica.

Before receiving his degree, the candidate will be required to sign the following oath or affirmation:—

SPONSIO ACADEMICA.

In facultate Medicinæ Universitatis Dalhousianæ.

Ego, Doctoratus, in Arte Medica titulo jam donandus, sancto coram Deo cordium scrutatore, spondeo:—me in omni grati animi officio erga Universitatem Dalhousianam ad extremum vitæ halitum, perseveraturum. Tum porro Artem Medicam caute, caste, probeque exercitaturum et quoad potero, omnia ad ægrotorum corporum salutem conducentia, cum fide procuraturum. Quæ denique, inter medendum, visa vel audita silere conveniat, non sine gravi causa vulgaturum. Ita praesens mihi spondenti adsit Numen.

## Fees.

The following fees payable by students and candidates for the degrees of M. D., C. M., are in all cases payable in advance:—

| | |
|---|---|
| Registration, if paid on or before Sept. 22* | $ 2.00 |
| Junior Chemistry Class Fee (including Laboratory Fee)† | 10.00 |
| Senior " " " " | 12.00 |
| Biology Class Fee (including use of microscopes and reagents) | 12.00 |
| Physics Class Fee (including Laboratory Fee)† | 10.00 |
| Graduation Fee‡ | 30.00 |

*After September 22, $3.00.

† All students taking classes involving laboratory work are required to make a deposit of Five Dollars on entering the class. This amount, or if charges for breakage have been incurred, what remains of it after such charges have been deducted, is returned to the student at the end of the laboratory course.

‡ Students who have paid $30.00 or upwards as Examination Fees are not required to pay an additional Graduation Fee.

## NOTE.

The following announcement is made which will prove of great importance to all Medical Students and Graduates of this University:

**That any person who holds the degrees of Doctor of Medicine and Master of Surgery of the DALHOUSIE UNIVERSITY, and is at the same time duly registered in the Medical Register of Nova Scotia, shall be entitled to be registered in the Colonial List of the British Medical Register, and shall thereby become equally entitled to the same privileges as persons registered in the regular Home Register.**

In 1886 an Imperial Act was passed providing for reciprocity with regard to Medical Education and Registration between the various British Possessions (and foreign countries) and Great Britain. Owing to a defining clause in the Act being at variance with the B. N. A. Act, Canada was unable to secure the benefits of the Imperial Act for graduates from any of her medical institutions. In 1905 a Bill was passed through the British House of Commons known as the "Laurie Act" amending the Act of 1886, and pursuant to this Act an Order was obtained from the Privy Council U. K., declaring Nova Scotia a British possession to which the Act of 1886 applies. Application was then made to the General Medical Council U. K. for the recognition of the Medical degrees of this University and the above announcement embodies the decisions of the Council.

Nova Scotia is thus the first Canadian Province to secure these important concessions including the right to practise in Britain, and in certain other Colonies and Countries; admission to the army service, etc.

### THE FIVE YEARS COURSE.

In order that this recognition may be maintained the Medical Council has intimated that the curriculum for the M. D., C. M. degrees must be extended to include five academic years. An Act was also passed by the local legislature and assented to by the Lieutenant Governor, April 16, 1908, which demands a five years' course from all candidates for the License of the Medical Board of Nova Scotia who begin the study of medicine after July 1, 1908. To meet these requirements and in accordance with notice given in last Calendar (1907-08) students now or hereafter entering upon their medical course at this University and at the Halifax Medical College will therefore be required to produce evidence of having completed five *anni medici* before being admitted to the Final Examinations for degree.

The following is recommended as the curriculum of the first year for students beginning their course in September 1908, and who wish at the end of the session, to take the prescribed examination, to be hereafter known as the "First Professional Examination."

**First Year Subjects**

| | | |
|---|---|---|
| Junior Anatomy, | with | Practical Anatomy, |
| Junior Chemistry, | " | Practical Chemistry, |
| Biology, | " | Practical Biology, |
| Physics, | " | Practical Physics. |

## First Professional Examination.

This Examination will include Anatomy, Inorganic Chemistry, Biology, Medical Physics, as indicated at page 100. Candidates for this examination will be required to produce the certificates specified and comply with all the other requirements indicated at page 101, for persons who began study previous to July 1908, and Candidates for Sect. A of the Primary Examination. The fee for this examination will be Ten Dollars. All other general and special regulations applying to Section A of the Primary Examination will apply equally to candidates for this Examination.

---

The curriculum for the remaining four years and the requirements and regulations for the subsequent Professional Examinations will be announced hereafter.

# Faculty of Dentistry.

THE PRESIDENT (*ex officio*).

| | |
|---|---|
| HIBBERT WOODBURY, D. D. S. | H. G. DUNBAR, D. D. S. |
| A. C HARDING, D. D. S. | H. W. BLACK, D. D. S. |
| FRANK WOODBURY, D. D. S. | A. W. H. LINDSAY, M. D. C. M. |
| J. M. MAGEE, D. D. S. | L. M. SILVER, M. D. C. M. |
| E. A. RANDALL, D. D. S. | F. U. ANDERSON, M. R. C. S. |
| M. P. HARRINGTON, D. D. S. | F V. WOODBURY, M. D. C. M. |
| M. K. LANGILLE, D. D. S. | E. MACKAY, Ph. D. |
| F. W. RYAN. D. D. S. | A. S. MACKENZIE. Ph. D |
| A. W. COGSWELL, D. D. S. | H. H. MACKAY, M. D., C. M. |
| G. K. THOMSON, D. D. S. | A. L. MCCALLUM, B. Sc. |
| F. W. STEVENS, D. D. S. | F. R. HALEY, M. A. |
| S. G. RITCHIE, D. M. D. | |

*Dean of the Faculty*: DR. FRANK WOODBURY.

*Secretary of the Faculty*: DR. F. W. RYAN.

*Correspondence should be addressed to* DR. FRANK WOODBURY.

## COURSES OF INSTRUCTION*

1. Instruction is provided by the University in the following subjects of the Dental Curriculum:—

### I.—CHEMISTRY.

*(McLeod Professorship).*

*Professor* .....E. MACKAY, PH. D.
*Demonstrator* .....G. J. MACKAY, M. A.

Dental students will be required to attend the University Courses in Chemistry known as **1 A** and **3**, as follows:

**1 A.** GENERAL CHEMISTRY.—*Mondays, Wednesdays and Fridays, 9—10 A. M.*

Measurements of mass, volume, pressure, temperature, heat; solids and liquids; gases and gas laws; melting-points, boiling-points, solution, crystallization. Preparation and properties of common acids and alkalies; combustion, air, water, oxygen, hydrogen; fundamental laws of combination, atomic theory, Avogadro's law, formulæ, equations; chlorine; sulphur; halogen group; nitrogen, argon; nitrogen group; carbon; dissociation, mass action; valence; periodic law; isomorphism; electrolytic dissociation; potassium, sodium, ammonium; silver, copper, gold;

*It is to be distinctly understood that the program and regulations regarding courses of study and examinations contained in this Calendar hold good for year ending April 30, 1909 only, and that the Faculty, while fully sensible of its obligations towards the students, does not hold itself bound to adhere absolutely for the entire period of a student's course to the conditions now laid down.

electrolysis; atomic heat; calcium, strontium, barium; magnesium, zinc, cadium, mercury; thermo-chemistry; boron; aluminium; carbon group; chromium; manganese; iron, nickel, cobalt, platinum. Some common organic compounds.

The lectures are illustrated as fully as possible by experiments. A tutorial class, attendance on which is in general optional, meets on Friday afternoons.

Every student is required to devote at least three hours a week to laboratory work.

The laboratory work is designed to make the student familiar with ordinary laboratory operations and to lead him to solve simple problems in chemistry by experiment. Several common inorganic substances are prepared and studied; simple quantitative experiments leading to the fundamental laws of chemistry are performed; and some time is devoted to elementary work in qualitative analysis.

BOOK RECOMMENDED: Smith, *General Inorganic Chemistry* (Century Co.)

**3.** MEDICAL CHEMISTRY.—*Autumn term: Saturdays, 9—10 A. M. Spring term: Tuesdays, Thursdays and Saturdays, 9—10 A. M. Laboratory: Tuesdays and Thursdays, 10—11 A. M., Fridays, 11 A. M.—12 M.*

Students entering this class must have taken Chemistry 1 A, or an equivalent class in chemistry.

*Class Work.*—The subjects of study in the class include pure chemistry and the applications of chemistry to medicine.

Pure Chemistry: Review of the chemistry of the metals, noting especially compounds having medicinal or toxic properties, compounds of carbon—their purification and analysis; the paraffins and their chief derivatives; ethylene; acetylene; benzene and its chief derivatives.

Medical Chemistry: Air; water, its sanitary analysis and purification; adulteration of foods; the proximate principles of the body and of food; typical foodstuffs—as milk, flour, bread, meat; the blood; the digestive fluids and digestion; urine.

*Laboratory Work.*—All members of the class are required to devote at least three hours a week to laboratory work. This will consist of qualitative analysis, including the detection of the more commonly occurring poisons, the detection of adulterations in milk, simple quantitative exercises in the analysis of air and water, and the quantitative estimation of glucose, albumen and urea.

BOOKS RECOMMENDED: Remsen, *Compounds of Carbon, 4th edition* (D. C. Heath & Co.); F. M. Perkin, *Qualitative Chemical Analysis,* (Longmans.)

### CHEMICAL LABORATORY.

The general laboratory is open to students in Dentistry from 10 to 11 a. m., on Mondays, Tuesdays, Wednesdays and Thursdays, and from 10 a. m. to 12 m., on Fridays.

Laboratory students are allowed the use of all the more inexpensive reagents. They are required to provide themselves with the more expensive reagents as alcohol and ether, and they are charged with the value of the apparatus they have broken or injured.

All members of practical classes are required to keep a detailed record of their laboratory work. The character of this record is a factor in determining the standing of a student in the class lists.

## II.—BIOLOGY.

*Lecturer*.....

*Tuesdays, 2—4 P. M., Saturdays, 9—11 A. M.*

BOTANY.—The course in Botany will have special reference to the following subjects: Protoplasm and Plant-cells, the Tissue and Tissue Systems of Plants, Morphology of the Plant-body, Plant Physiology, the Principles of Classification and the Laws of Distinction, the Protophyta (Schizophyceæ), the Phycophyta (Chlorophyceæ and Phæophyceæ), the Carpophyta (Rhodophyceæ, Ascomyceteæ and Basidiomyceteæ specially), the Bryophyta (Mosses and Liverworts), the Pteridophyta (Ferns, Horsetails and Club-mosses), the Anthophyta (specially the Coniferæ, Graminеæ, Orchidaceæ, Liliaceæ, Urticaceæ, Labiatæ, Compositæ. Umbelliferæ, Rosaceæ, Cruciferæ, Leguminosæ, Ranunculaceæ). The Morphology and life history (the anatomy, histology, and development) of at least two common or representative species of each group of plants above named, in minute detail.

General attention will be given to the native flora of the Province, with special notice of foreign as well as native species of interest from economic, medicinal or injurious properties.

The preliminary study in Botany as indicated in Grade IX. of the Public School Course, and especially the formation of a local collection of plants, even if unnamed and unclassified, will be an advantage to any student entering upon the course.

Practical instruction will be given in the collecting, drying and mounting of specimens, the use of the microscope, the preparing of microscopic sections, and the general dissection of plants. The use in class of a number of microscopes will be granted the students under the care and direction of the Lecturer; but a hand lens, glass slides, cover glasses, scalpels and other apparatus or books necessary for each student, should be supplied by each for himself. Collections, notes, class-work and drawings will be estimated for incorporation into final class standing.

TEXT BOOKS: *Principles of Botany*, by Bergen and Davis (Ginn & Co); *High School Text of Botany*, Macoun and Spotton.

FOR REFERENCE: Special text books will be recommended in each sub-division of the subject during the course of the lectures and demonstrations.

ZOOLOGY.—The course in Zoology will consist of lectures supplemented by practical work.

The student will be expected to master the system of Zoology parallel with the course of lectures expounding zoological principles and sketching local distribution of species and genera, and with the life-study or dissections of local species under the microscope or scalpel as follows:

1. Five specimens of the local lobosa; 2. One species each from any five of the following: The Foraminifera, Heliozoa, Radiolaria, as contained in Shipley and McBride's Elementary Text-Book. Flagellata, Choanoflagellata, Dinoflagellata, Paramoecium, Vorticella, Sporozoa; 3. Three species of marine, and three of freshwater Sponges; 4. One species each of Hydra: the Campanularidæ, Plumularidæ, and Sertularidæ; Aurelia, Metridium; and the skeletons of Zoantharia and Alcyonaria; 5. A species each of the Platyhelminths and of the Nemathelminths; 6. Five species of local freshwater and marine Polyzoa and a Rotifer; 7. The common Starfish; 8. The common Sea-Urchin; 9. An Earthworm;

10. A Lobster; 11. Entomostraca in water supply, and dissection of Grasshopper in detail; 12. Oyster, Clam, or Mussel; 13. A Trout, Smelt, Herring or Cod. (Or No. 16 in full detail); 14. A Frog. (Or No. 16 in full detail); 15. A Pigeon. (Or No. 16 in full detail); 16. A Rabbit. (If in full detail for 12, 13, 14 and 15.) The scarcity of any of the above during the season, or the abundance of other species may modify the list of species for dissection or life-study as may suit the circumstances most conveniently.

### III.—MEDICAL PHYSICS

*Professor* .....A. STANLEY MACKENZIE, PH. D.
*Demonstrator* .....

***Mondays, Wednesdays and Fridays, 11 A. M.—12 M.***

There is no class given for Dental students only. They must attend the regular University course in Physics known as,

**1.** GENERAL PHYSICS.—In the work of this course a rapid survey of the whole subject of Experimental Physics is taken, the subjects treated being: Dynamics, Properties of Solids and Fluids, Sound, Heat, Electricity and Magnetism, Light and other forms of Radiation. The course is fully illustrated by experiments, and special attention is paid to the solution of problems, all students being required to hand in papers for correction and criticism. In the earlier part of this course especially, Medical students will be excused from attendance on days to be assigned in advance.

PRACTICAL PHYSICS (Medical).—In order to meet the new requirements of the Medical Faculty, a two-hours laboratory course will be conducted once a week for medical students. More definite announcement of the work will be made at the opening of the Session.

BOOKS RECOMMENDED: Watson, *Physics;* Jones, *Heat, Light and Sound;* Cumming, *Electricity treated experimentally.*

## Degree of Doctor of Dental Surgery.

The course for the degree of Doctor of Dental Surgery extends over four years. The Academic Year consists of a session of eight months for each of the first and second years, and of seven months for the third and fourth years. The University provides the instruction required in Chemistry, Physics, Biology, and recognizes the instruction in other required subjects, given in the Halifax Medical College and the Maritime Dental College, or other approved colleges. The course prescribed is in harmony with the standards of the Dental Council of the Dominion of Canada. A certificate of qualification, issued by the Council, entitles the holder to practise in nearly every province in Canada.

## Matriculation.

Candidates seeking admission to the course in Dental Surgery should first register at the Maritime Dental Col-

lege. In order to register as an undergraduate in Dentistry a candidate must satisfy the requirements for Matriculation either by passing the Matriculation examination in Arts of this University, or the examination of the Provincial Dental or Provincial Medical Board of N. S., or by presenting certificates accepted as equivalent. The provincial certificates of Grades XII and XI are accepted, provided the candidates have passed in Latin.

Candidates who are looking forward to the Medical degree should register with the Provincial Medical Board at the beginning of their course. This will enable them to take the Medical and Dental courses concurrently and so reduce by two years the time required for the degrees of M. D., C. M., and D. D. S. combined.

## Examinations.

Four professional examinations are required for the degree of D. D. S. An examination is held at the close of each year during the month of April.

Before being admitted to a Professional examination a candidate must produce satisfactory certificates:

(*a*) Of having passed the examination for Matriculation and of having passed the said examination after the candidate completed his sixteenth year.

(*b*) Of having passed the earlier Professional examinations; but by special permission of the Faculty a candidate who has failed in the previous examination may take the two together.

(*c*) Of having attended in an approved College 90 per cent. of the lectures in the subjects prescribed for the examination.

(*d*) Of having registered in the University and having paid the fee required for the examination.

The tickets granted for admission to examination must be shown at the examination in each subject.

Candidates who have taken the degree of B. A. or B. Sc., and in their course have taken classes in Chemistry or Physics or Biology, equivalent to those required, and have attained a sufficiently high standard in the examinations, may be granted exemption from the corresponding portions of the Professional Examinations, provided their certificates are satisfactory. Candidates from approved Dental Colleges may, on the production of satisfactory certificates, be exempted from any of the subjects of the first three Professional Examinations.

Application for examination should be sent to the Dean of the Faculty at least two weeks before the date of the first examination.

At all examinations a minimum of 50 per cent. in each subject will be required to obtain a "pass," except in the Final Professional, where a candidate who has failed in any subject will be required to pass a supplementary not only in that subject but also in every other subject in which he has made less than 60 per cent., and in the supplementary he must make not less than 60 per cent. Candidates making 75 per cent. or more in any subject in the regular examination shall be declared to have "Passed with distinction." The names in the two divisions of the lists shall be placed in alphabetical order.

A candidate who has failed to pass in a subject or in more than one subject may be permitted to appear at a supplementary examination in those subjects at the dates appointed for such examinations, provided he has paid a fee of $5 for each subject in which he wishes an examination.

Candidates are not permitted to present themselves for examination in selected subjects, but are required to take each Professional examination as a whole, except (*a*) candidates who are exempted from part of the examination by certificates or otherwise, (*b*) students taking one of the Medical or Scientific subjects as an elective in their course in Arts or Science.

## First Professional Examination.

This examination held at the close of the first session shall include Anatomy, Chemistry, Physics, Biology, to the extent required for the first Professional examination for the M. D., C. M. degree; also Operative Dentistry and Prosthetic Technic.

The following is synopsis of the subjects required:—

### ANATOMY.

A written examination in Osteology, including general physical characters, chemical composition and structure of bone. ossification, Arthology; classification of Joints, structure and mechanism of the most important (Tempero-Maxillary, hip, knee, shoulder, elbow, ankle, etc.)

### CHEMISTRY.

Elementary general Chemistry and laboratory work as given in the University class known as Chemistry 1 A.

### BIOLOGY.

Candidates will be expected to show a practical acquaintance with the topics in Botany and Zoology named in the University class in Biology.

PHYSICS.

The course in General Physics as outlined in the University class in Physics for medical students.

OPERATIVE TECHNIC.

General Anatomy of the teeth; the relation of the different dental tissues as taught in the Operative Technic Laboratory.

PROSTHETIC TECHNIC.

Fundamental principles of Denture construction; Forms and Occlusion of the Teeth; Materials used in Dental Prosthetics and their manipulation.

Candidates for this examination shall be required to present certificates of having attended either in this University or in some other College or University approved by the Senate, such as the Halifax Medical College or the Maritime Dental College, the following courses of lectures and instruction:—*Chemistry*, 75 lectures, with a laboratory course of not less than three hours per week for six months; *Biology*, a course of at least 100 hours of lectures and laboratory work; *Physics*, a course of at least 50 lectures; and a certificate of having attended after having passed the Matriculation Examination or its equivalent, a course in *Anatomy* of at least 75 lectures, and a course in *Practical Anatomy* in which the head and neck and one other part shall have been dissected and demonstrations held and examinations passed; a course of lectures throughout the year in *Operative Dental Technic;* and in *Prosthetic Technic*, a course of lectures including laboratory work throughout the year.

## Second Professional Examination.

This examination shall include Anatomy, Chemistry, Physiology, and Histology (General and Dental), Operative and Prosthetic Dentistry, and Comparative Dental Anatomy.

The requirements in Anatomy, Chemistry and Physiolgy, shall be the same as those prescribed for the Second Professional Examination of the M. D., C. M.

ANATOMY.

This examination will be partly written and partly *viva voce*. The paper may include questions in Descriptive and Regional Anatomy, Surgical and Medical Anatomy. At the oral examination, candidates will be examined on the skeleton, recent dissections, models, preparations, etc

**PHYSIOLOGY.**

A written and an oral examination on:

(*a*) The Physiology of digestion, absorption, circulation, respiration, secretion, nutrition, animal heat, animal motion; the functions of the nervous system and sense organs; reproduction and development.

(*b*) The composition of food, and of the tissues, secretions, excretions, and other fluids of the body.

**CHEMISTRY.**

Inorganic, organic and medical chemistry as in the University class, know as Chemistry 3. The examination will include:

(*a*) A written paper on the work outlined under "class-work" and "laboratory work" in the above course;

(*b*) A practical examination in the laboratory;

(*c*) An oral examination, in which, in addition to the preceding, questions may be put to the candidate upon the work prescribed in Chemistry 1 A.

**PROSTHETIC DENTISTRY.**

Detail of Technic Principles; metals and materials used in Dental Prosthesis; arrangement and occlusion of artificial teeth; relation of the muscles of mastication and of other tissues to artificial dentures; other subjects as announced later.

**OPERATIVE DENTISTRY.**

Operative Technic; demonstrations on extracted teeth; classification and preparation of cavities; treatment of pulps and root canals; properties of filling materials; instruments and their management; development and eruption of the teeth.

**COMPARATIVE ANATOMY AND HISTOLOGY.**

Comparative Dental Anatomy and General and Dental Histology.

Candidates for this examination shall be required to present certificates of having attended either in this University or some other approved college or university, such as the Halifax Medical College or the Maritime Dental College, the following courses of lectures and instruction: *Senior Anatomy*, at least 75 lectures and demonstrations with 10 hours laboratory work per week; *Chemistry 3*, 50 lectures in Organic and Medical Chemistry with a laboratory course of not less than 3 hours per week; *Physiology*, 75 lectures; *Histology*, 60 lectures and laboratory work; a course of lectures and demonstrations; also practical work throughout the year in *Prosthetic Dentistry;* a course of lectures, etc., in *Operative Dentistry;* a course of lectures in *Comparative Dental Anatomy*, and a course of lectures in *Dental Histology*.

## Third Professional Examination.

The subjects of this examination include Prosthetic Dentistry, Crown and Bridge Work, Ceramics and Oral Hygiene, Operative Dentistry, Orthodontia, Pathology and Bacteriology, Materia Medica, and Oral Therapeutics to the extent indicated below:—

### PROSTHETIC DENTISTRY.

Construction of full and partial dentures in metal, vulcanite, porcelain, etc.; study of human face; laws governing retention of artificial dentures; metallurgy; other subjects to be announced later.

### CROWN AND BRIDGE WORK.

Technic work in second year; preparation, properties, and manipulation of materials; various methods; Porcelain technic and practice; the processes involved in Preventive Dentistry.

### OPERATIVE DENTISTRY.

Principles of practice; cavity formation; selection and introduction of filling materials; crowning, porcelain inlays and other operations in conservative dentistry; diagnosis and treatment of pathological conditions in the teeth and surrounding tissues.

### ORTHODONTIA.

Normal occlusion; derangement of alignment and malformation of the maxillae; methods and appliances for restoration of normal conditions in the mouth.

### PATHOLOGY AND BACTERIOLOGY.

General and dental pathology—etiology and pathology of the diseases peculiar to the teeth and mouth; morphology and life history of bacteria peculiar to the oral cavity.

### MATERIA MEDICA AND ORAL THERAPEUTICS.

Selected sujects from the Materia Medica requirements for the M. D., C. M.; oral therapeutics: general pathological conditions and the agents indicated in their treatment; choice and application of remedies for diseased conditions of the teeth and surrounding tissues; prescription and administration of drugs; toxic action of poisons and antidotes.

Candidates for this Examination shall be required to present certificates of having attended either in the Halifax Medical College or the Maritime Dental College, or in some other college approved by the Senate, the following courses of lectures, demonstrations and laboratory work:—*Prosthetic Dentistry,* a course of lectures extending over the third session with infirmary and laboratory practice; *Crown and Bridge Work, Ceramics and Hygiene,* a course of lectures extending over the second and third years with infirmary and laboratory practice and the presentation of a set of models;

*Operative Dentistry*, a course of lectures extending over the session with infirmary practice and the presentation of practical cases; *Orthodontia*, a course of one session's lectures with laboratory and infirmary work; *General and Oral Pathology and Bacteriology*, a course of lectures on subjects selected from those required for the M. D., C. M., and those of special interest to dentists; *Materia Medica and Therapeutics*, a course of lectures on Materia Medica as given in the Halifax Medical College during the second year, and a course on Special Materia Medica Oral Therapeutics extending through the third session.

## Final Professional Examination.

This examination includes General and Oral Surgery, Operative Dentistry, Orthodontia, Prosthetic Dentistry, Crown and Bridge Work, Ceramics, History of Dentistry, Professional Ethics and Jurisprudence to the extent indicated below:—

### SURGERY.

General and Oral Surgery; Surgical Anatomy and Pathology, infection, inflammation, suppuration, necrosis, ankylosis, dislocation, fractures, tumours; surgical affection of lip, tongue, and mouth; cleft palate, hare lip.

### OPERATIVE DENTISTRY.

The principles and methods of all operations included in Conservative Dentistry.

### PROSTHETIC DENTISTRY

The principles and methods of all operations included in Dental Prothesis.

### HISTORY OF DENTISTRY, JURISPRUDENCE, ETC.

History and Development of Dentistry; Professional Ethics, obligations of professional men to their patients, fellow practitioners and the public; Jurisprudence, qualifications and duties of expert witnesses; Dental records; responsibilities of practitioners.

Candidates for this examination shall be required to present certificates of having attended in some approved college the following courses of lectures, laboratory and infirmary work: *General and Oral Surgery, and Anaesthetics*, a course of lectures in the third and fourth sessions; *Operative Dentistry*, a course of lectures, demonstrations and practice extending over

the fourth session, including certified cases of successful operations performed during the year; *Orthodontia,* a course of demonstrations, infirmary practice extending throughout the fourth session, including certification of specified cases, also models; *Prosthetic Dentistry,* a course of lectures, demonstrations, laboratory work and infirmary practice, including certification of specified cases; *Crown and Bridge Work, Ceramics,* a course of special lectures, including presentation of practical cases; *History, Ethics, and Jurisprudence,* a course of lectures.

The final D. D. S. examination will be held in the second and third weeks in April. Candidates are required to hand in their applications to the Dean of the Dental Faculty at least fourteen days before the date of the Examination, and the required certificates not less than two days before the examination, to enter their names in the register of the undergraduates, and to pay the required fees.

## Fees

ALL FEES* ARE PAYABLE IN ADVANCE.

| | |
|---|---|
| Registration | $ 2.00 |
| Registration after Sept. 22nd | 3.00 |
| Chemistry 1 A† | 10.00 |
| Chemistry 3† | 12.00 |
| Biology | 12.00 |
| Physics (without laboratory) | 6.00 |
| Each Annual Professional Examination | **10.00 |
| Each Supplementary Examination | 5.00 |
| Caution Money | 2.00 |

*The University collects the Registration and Examination fees and Laboratory deposits. The Class fees are paid by the Maritime Dental College.

**This includes the diploma fee. Where a candidate for the D. D. S degree has not taken all his Professional Examinations at this University, the total fee payable to this University shall be $40.00.

† All students taking classes involving laboratory work are required to make a deposit of Five Dollars on entering the class. This amount, or if charges for breakage have been incurred, what remains of it after such charges have been deducted, is returned to the student at the end of the laboratory course.

# Institutions.

## THE UNIVERSITY LIBRARIES.*

The Arts Library was instituted in 1867, as the result of an appeal made by the Rev. George M. Grant, at Convocation. Until 1888 the number of volumes did not exceed 3,000; to-day there are about 13,900 volumes and 3,500 pamphlets.

When the Law Faculty was organized in 1883, the Dean received a number of very generous contributions for a Library. A useful collection of Law books was secured, partly through the exertions of the late J. T. Bulmer. To-day the number of volumes exceeds 7,750.

The Arts Library contains the MACKENZIE COLLECTION of works on Mathematical and Physical Science, which was presented to the College by the relatives of the late Professor J. J. MacKenzie; the ROBERT MORROW COLLECTION of works on Northern Antiquities and Languages, presented by Mrs. Robert Morrow; the SETH COLLECTION of Philosophical works, purchased with the proceeds of a course of public lectures on Psychology given by Professor James Seth; the DEMILLE MEMORIAL, presented by Professor MacMechan from the proceeds of two courses of Lectures on Shakspere; the LAWSON LIBRARY, presented by the daughters of the late Professor George Lawson, LL. D.; the MCCULLOCH COLLECTION, from the Library of the late Rev. W. McCulloch, D. D.; the EDWIN P. ROBINS MEMORIAL COLLECTION of Philosophical books; the MACDONALD COLLECTION, presented by the son of the late Professor Charles Macdonald, M. A.; the DEMILLE COLLECTION, presented by Mrs. J. DeMille; the HARRINGTON COLLECTION, presented by the family of the late Emily Harrington, M. A.; also the following CLASS MEMORIAL COLLECTIONS:

Class of 1894: Classical Dictionaries.
Class of 1895: Sophocles' Plays and Bacon's Works.
Class of 1896: Jesuits' Relations.
Class of 1897: Dryden's Works, and Economics.
Class of 1898: Standard Editions of Plato and of Aristotle.

*Students have access, subject to certain conditions, to the Citizen's Free Library, the Legislative Library, and the Libraries of the N. S. Institute of Science and of the Mining Society. Of the other Libraries in the city, the Cambridge Library and the Law Library of the Barristers' Society should be mentioned.

Class of 1899: New English Dictionary, General Literature.
Class of 1900: Dictionary of National Biography.
Class of 1901: Supplementary volumes of the Encyclopædia Britannica, Mathematical and Physical Books.
Class of 1902: Works on Geology, Metallurgy, and Civil Engineering.
Class of 1903: Darwin's Works, Stevenson's Works, Works on Civil Engineering.
Class of 1904: Works on English Literature, History, Philosophy, Mathematics and Chemistry.
Class of 1905: Works on English Literature, History, Mathematics, Chemistry and Engineering.
Class of 1907: One hundred and thirty-two dollars, as yet unappropriated.

The Class memorials are the most important contributions to the Library. These gifts reflect the greatest credit both on the givers and on the College that has such generous students.

The Accession book shows that 700 books and pamphlets were received by the Library during the session 1907-08.

Among the more important donations were 30 volumes, chiefly of German literature from the Misses Ritchie; 57 volumes from Professor W. C. Murray; 26 volumes in History from a graduate who does not wish his name published; 6 volumes of reviews from Professor D. A. Murray; 10 volumes from Professor MacMechan; a contribution of $20 from Dr. Andrew Macphail, and $132 as a class memorial from the Class of 1907.

Calendars have been received from the following colleges and universities:—Bishop's College, Congregational College (Montreal), King's College, Laval, Manitoba, Mount Allison, McGill, Normal School (Truro), Ottawa, Prince of Wales, Queen's, St. Joseph, Toronto, Trinity, Western, and from Aberdeen, Bryn Mawr, Birmingham, Chicago, Cornell, Edinburgh, Johns Hopkins, Lehigh, Massachusetts Institute of Technology, Melbourne, Montpellier, Nebraska, Paris, Pennsylvania, Sydney, Tasmania, Texas, Trinity College of Music (London), Vassar, Yale (Sheffield School).

The periodicals contributed to the Library were: *The Nation, The Canadian Courier, The Canadian Magazine, The Atlantic Monthly, Publications of the Modern Language Society, Engineering, Engineering News, Mines and Minerals, The Engineering Canadian Mining Journal, Nature, Chemical News. The Fortnightly Review,* by Professor D. A. Murray; *The Times,* by Prof. E. Mackay; *The Philosophical Review, The Psychological Review, The International Journal of Ethics, Mind, Pedagogical Seminary, Educational Review* (of New York), by Professor W. C. Murray.

It is regrettable to note that on taking stock in December, 1907, a large number of volumes was not accounted for.

Miss Zillah Macdonald has not only acted during the past session as assistant, but has rendered effective aid in typing the correspondence.

The Library Committee for 1907-08 were: The Librarian and Professors W. C. Murray, MacKenzie, and Jones.

## THE ALUMNI ASSOCIATION.

**(Organized 1871, incorporated 1876.)**

The thirty-eighth annual meeting was held at the Halifax Hotel on the evening of April 29th, 1908, and was largely attended. The first Vice-President, A. S. Barnstead, B. A., LL. B., was in the chair.

The receipts for the year were $305.54, and the expenditure was $283.90.

In presenting his report, Prof. Mackay referred to the needs of the Science Department and pointed out that, if the association had the loyal support of all alumni, it would be able to make such annual grants as to provide the necessary facilities for carrying on science work in a desirable manner.

A series of resolutions dealing with proper representation on the Board of Governors was passed, and R. M. MacGregor, B. A., was nominated the Alumni representative governor for a period of three years.

The officers of the Association are:—

| | |
|---|---|
| *President* | A. S. BARNSTEAD, B. A., LL. B. |
| *1st Vice-President* | A. S. MACKENZIE, PH. D. |
| *2nd Vice-President* | G. S. STAIRS, B. A. |
| *Secretary-Treasurer* | S. A. MORTON, M. A. |
| *Executive Committee* | MELVILLE CUMMING, B. A.<br>J. W. LOGAN, B. A.<br>E. MACKAY, PH. D.<br>G. W. STAIRS, B. A.<br>J. H. TREFRY, M. A. |
| *Auditors* | J. M. GELDERT, LL. B.<br>J. F. PUTNAM, B. A. |

The officers of the C. B. Branch last reported were:—

| | |
|---|---|
| *Honorary President* | CHAS. S. CAMERON, M. A. |
| *President* | H. P. DUCHEMIN, B. A. |
| *Vice-Presidents* | F. B. A. CHIPMAN, M. A., LL. B.<br>J. L. BETHUNE, M. D.<br>W. F. CARROLL, B. A., LL. B.<br>D. FINLAYSON, B. A., LL. B., M. P. |
| *Secretary* | C. D. LIVINGSTONE, LL. B. |
| *Treasurer* | J. E. A. MACLEOD, M. D. |
| *Other Members of the Executive Committee* | M. T. MACLEAN, M. D.<br>D. McD. CAMPBELL, M. A., B.Sc.<br>G. A. R. ROWLINGS, B. A., LL. B.<br>REV. W. H. SMITH, B. A., PH. D.<br>FINLAY MACDONALD, B. A., LL. B. |

The officers of the New England Branch are:—

| | |
|---|---|
| *President* | K. G. T. WEBSTER, PH. D. |
| *Secretary-Treasurer* | E. K. HARVEY, B. A. |
| *Chairman of Committee* | VICTOR FRAZEE, B. A. |

# STUDENT SOCIETIES.

### University Students' Council.

Meetings are held regularly in November and February to conduct business in which all the Students of the University are interested. Special meetings may be called by the President at any time.

*President* ..... R. W. MACLELLAN, B. A.

*Vice-Presidents* ..... W. W. MALCOLM. A. CALDER. H. W. FLEMMING.

*Secretary-Treasurer* ..... G. B. MCCUNN.

*Executive Committee* ..... W. V. COFFIN. A. S. WALL. G. FARQUHAR, B. A. R. INGLIS.

*Auditors* ..... D. C. SINCLAIR. W. S. LINDSAY, B. A.

The DALHOUSIE GAZETTE is published by the students of the University under the authority of the Council.

The following have been appointed by the students of the Arts and Science Faculties as Editors for 1907-08:—

J. MACNEIL (Arts, '09). W. A. MACDONALD (Law, '10).
D. C. SINCLAIR (Arts, '09). P. DAVIS (Med., '09).
H. DAVIS (Arts, '10). M. G. BURRIS (Med., '10).
C. L. GASS (Arts, '11). G. B. MCCUNN (Eng., '09).
H. MENZIE (Law, '09). C. J. MACKENZIE (Eng., '09).

*Lady Editors* ..... MISS G. M. TUPPER (Arts, '09). MISS L. ALBERTA UMLAH (Arts, '10).

*Alumni Editor* ..... H. D. BRUNT, B. A.

A. SUTHERLAND, *Business Manager.*

### Arts and Science Students' Society.

This Society meets in October and April to conduct business in which the Arts students alone are interested. Special meetings may be called at any time by the President.

OFFICERS.

*President* ..... J. E. READ.

*Vice-President* ..... C. L. GASS.

*Secretary-Treasurer* ..... H. DAVIS.

*Executive Committee* ..... J. G. MCLEAN. J. D. MACLEOD. A. D. MACDONALD.

### Law Students' Society.

This Society meets at the opening of the Session for general business, and thereafter at such times as the President may deem necessary.

OFFICERS.

*President* ..... J. J. MARTIN.
*Vice-President* ..... J. DOULL.
*Secretary-Treasurer* ..... R. W. LANDRY.

### The Mock Parliament.

The Mock Parliament meets every Saturday night until the Christmas vacation. All students of the University are welcome, but only students taking Law Classes are allowed to take part in the debates which are wholly of a political character on current questions. Parliamentary procedure is strictly observed.

OFFICERS.

*Speaker* ..... ———————

### The Moot Court.

The Moot Court is intended for law students only, so far as arguing is concerned. It is conducted as nearly as possible after the manner of the Supreme Courts; and all law students of second and third year standing are required to take part in at least one case during the session. (See Law Faculty).

### The Medical Debating Club.

The meetings of this Society are held weekly throughout the session. Topics of general interest are discussed, and papers on medical subjects are read.

OFFICERS.

*President* ..... R. O. SHATFORD.
*Vice-President* ..... A. CALDER.
*Secretary* ..... P. GRANT.
*Treasurer* ..... A. K. ROY, B. A.
*Executive Committee* ..... W. A. MACLEOD.
W. F. KENNEY.
E. K. MACLELLAN.
J. J. MACDONALD, B. A.

### The Sodales Debating Club.

The Sodales Debating Club meets fortnightly during the session, subjects of general interest being discussed.

OFFICERS.

*Honorary President* ..... DR. MACKENZIE.
*President* ..... G. FARQUHAR, B. A.
*Vice-President* ..... D. C. SINCLAIR.
*Secretary-Treasurer* ..... A. CALDER.
*Executive Committee* ..... J. F. CAHAN. J. P. MCINTOSH. W. V. COFFIN. W. A. MCDONALD.
*Representative on Committee for Intercollegiate Debate* ..... J. A. MACKEIGAN.
*Auditors* ..... P. D. DAVIS. A. J. LAWRENCE.

### Young Men's Christian Association.

Meetings of the Association are held every Saturday evening at the College.

OFFICERS.

*Honorary President* ..... PROF. W. C. MURRAY.
*President* ..... PERCY DAVIS, Med. '08.
*Vice-President* ..... SOLON CROWELL, Sc. '09.
*Corresponding Secretary* ..... W. B. ROSBOROUGH, Arts '09.
*Recording Secretary* ..... A. D. MACDONALD, Arts '11.
*Treasurer* ..... GEO. FARQUHAR, Law '10.

### Young Women's Christian Association.

Meetings of the Association are held every Monday afternoon at 5 o'clock.

OFFICERS.

*President* ..... LENA M. SIBLEY.
*Vice-President* ..... LENORE SMITH.
*Recording Secretary* ..... GEORGINA MACKAY.
*Corresponding Secretary* ..... JEAN MACGREGOR.

### The Dalhousie Amateur Athletic Club.

*Honorary President* ..... PRESIDENT FORREST.
*President* ..... D. A. CAMERON.
*Vice-President* ..... D. C. SINCLAIR.
*Secretary* ..... A. O. THOMAS.
*Treasurer* ..... PROF. MACNEILL.
*Executive Committee* ..... N. C. RALSTON. M. G. BURRIS. J. J. MACDONALD. J. J. MARTIN, B. A. J. RANKINE, M. D.
*Captain* ..... D. A. CAMERON.
*Trophy Committee* ..... H. W. FLEMMING. D. A. CAMERON.
*Field Committee* ..... J. A. JOHNSON. R. T. MACILREITH, LL. B. PROF. W. MURRAY.
*Auditors* ..... G. B. MCCUNN. W. S. LINDSAY, B. A.

### The Glee Club.

The Club meets once a week for practice of glees and choruses.

OFFICERS.

*President* ..... F. R. ARCHIBALD.
*Vice-President* ..... CLAIRE STRICKLAND.
*Secretary-Treasurer* ..... T. M. DEBLOIS.
*Executive Committee* ..... M. L. FRASER. W. L. MCLEAN. E. A. MUNRO. LENA M. SIBLEY. AGNES M. DENNIS.
*Conductor* ..... M. HALL.
*Accompanist* ..... CLAIRE STRICKLAND.

### The Delta-Gamma Society.

The Delta-Gamma Society meets bi-monthly during the session. All lady students are eligible for membership. Debates are held, and literary programmes are prepared.

*President* ..... MABEL E. MCLEOD.
*Vice-President* ..... MARGARET CHASE.
*Secretary* ..... MARY SMITH.
*Treasurer* ..... JEAN MACGREGOR.

### The Engineering Society.

This Society meets monthly to hear addresses by Engineers.

*Honorary President* ..... PROF. A. S. MACKENZIE.
*President* ..... J. F. CAHAN.
*Vice-President* ..... H. CAVANAGH.
*Secretary* ..... N. RALSTON.
*Treasurer* ..... D. STAIRS.

### The Engineering Cadet Corps.

*Honorary Major* ..... PROF. A. S. MACKENZIE.
*Captain* ..... D. STAIRS.
*Lieutenant* ..... F. DAWSON.
*Sergeant-Major* ..... G. MACDONALD.

### The Rifle Association.

*Honorary President* ..... DR. FORREST.
*Captain* ..... G. D. MACDONALD, Eng. '10.
*First Lieutenant* ..... J. D. MACLEOD, Arts '10.
*Second Lieutenant* ..... L. ROY, Eng. '11.
*Secretary-Treasurer* ..... J. C. CROWE, Arts '09.

# AFFILIATED COLLEGES.

## The Prince of Wales College.

(Founded in 1860.)

S. N. ROBERTSON, M. A. (Dal.), LL. D., Principal, *Latin, Greek and School Management.*
H. H. SHAW, B Sc. (McGill), Vice-Principal, *Chemistry, Physics and Psychology.*
E. E. JORDON, M. A. (Dal.), *Mathematics and Book-keeping.*
A. W. SEAMAN, B. A. (Dal.), *English and History.*
J. D. COLLIER, *Drawing and Manual Training.*
J. A. MACDONALD, B. A. (Laval), *French and Latin.*
THEO. ROSS, B. A (Dal.), *Botany and Physical Geography.*

Prince of Wales College, Charlottetown, amalgamated with the Provincial Normal School of Prince Edward Island in 1879, is intended to provide for young people of both sexes a liberal education in Literature and Science, and also to educate and train the teachers for the Public Schools of the Province. Its curriculum is conformed to the common needs of the teacher and of the student seeking a general education.

The College course is planned for a term of three years. Admission to the College is to the First Year, or local class. Students who attain a high mark at the matriculation examination will be permitted, if on further examination found worthy, to enter the Second Year.

To the Second Year are admitted all students who have made 60 per cent. in the examinations of the First Year, and also those persons who hold a Provincial license of the Second Class.

To the Third Year are admitted those who have made 60 per cent. in the Second Year work, and also those persons who hold a license of the First Class.

At the close of the session Honour Diplomas are granted to Third Year students who make over 65 per cent. in the examinations of the year; to those students who have shown throughout their course exceptional merit, High Honour Diplomas are issued.

Certificates are granted to Second Year students who make an average of 65 per cent. in the examinations of

their year. These Certificates entitle their holders to First Class license without further examination, providing that Normal training has also been taken.

Students holding High Honour Diplomas are admitted to the Third Year of the B. A. Course in Dalhousie, those holding Honour Diplomas to the Second, those holding Certificates or First Class licenses to the First Year.

**Halifax Conservatory of Music.**

*President*.....REV. R. LAING.

The University recognizes the teaching of the Conservatory as part of the qualifications required for the degree of Bachelor of Music.

**Halifax Ladies' College.**

*Principal*.....MISS L. M. HENDRIE.

Students who have completed the Collegiate course, taking Latin, and received the Diploma are admitted to the Arts course without further examination.

**Convent of the Sacred Heart.**

*Mother Superior*.....MADAME REID.

Students who have completed the regular course and received Diplomas are admitted to the Arts course without further examination.

# University Lists

## DEGREES.

CONFERRED APRIL 30TH, 1908.

### DOCTOR OF LAWS (*Honoris Causa.*)

DUNCAN CAMERON FRASER, D. C. L., *Lieutenant-Governor of Nova Scotia.*

GEORGE HENRY MURRAY, LL. D., *Premier of Nova Scotia.*

ROBERT ALEXANDER FALCONER, D. LITT., *President of Toronto University.*

ALEXANDER ROBINSON, B. A., *Superintendent of Education, British Columbia.*

ROBERT MACLELLAN, *Principal of Pictou Academy.*

### MASTER OF ARTS.

DAVID GRAY DAVIS, B. A.—*By Thesis and Examination in Education.*

DORA GUILLE FAULKNER, B.A.—*By Examination in French.*

CATHERINE ISABELLE GOUDLEY, B. A.—*By Examination in Shakespere.*

RODERICK AUGUSTUS MACDONALD, B. A.—*By Examination in Philosophy.*

BARBARA LOIS MACKAY, B. A.—*By Examination in Psychology and Metaphysics.*

ALEXANDER RETTIE, B. A.—*By Examination in Philosophy.*

JOHN SANDERS SUTHERLAND, B. A.—*By Examination in History.*

WALTER MILLAR THORBURN, B. A.—*By Thesis: "The Religious Geography of the Highlands."*

### BACHELOR OF ARTS.

| | |
|---|---|
| JEAN GORDON BAYER | Halifax. |
| LAURIE BROWNE WARD BROWNE | Springhill. |
| FRANCES MURIEL CUNNINGHAM | Dartmouth. |
| MABEL ENSWORTH GOUDGE | Halifax. |
| HELEN ANNIE BLANCHE MARSHALL | Halifax. |
| ETHEL MURPHY | Moncton, N. B. |
| NORA NEILL POWER | Halifax. |
| KATHLEEN JACKSON WEBBER | Sackville, N. S. |
| JOHN THOMAS ARCHIBALD | Guysboro. |
| JOHN JAMES GILLIES | Sydney. |
| JAMES HENRY HAMILTON | Burnside. |
| LEWIS JACK KING | Buctouche, N. B. |
| ROY LEITCH | Charlottetown, P. E. I. |
| CHARLES JOHN MACINNES | Lake Ainslie. |
| JOHN ANGUS MACKEIGAN | Sydney. |
| ALEXANDER EDWARD MACKINNON | Strathlorne. |
| DANIEL REDMOND MCLEAN | Pictou. |
| MURRAY HAYWARD MANUEL | Hawkshaw, N. B. |
| ERNEST ALEXANDER MUNRO | Antigonish. |
| WILLIAM KIEVER REID | Athole. |
| ARTHUR WALTON LESLIE SMITH | Annapolis. |
| GEORGE WILLIAM STAIRS | Halifax. |
| HENRY STANISLAUS TOLSON | Bedford. |

**BACHELOR OF ENGINEERING.**

*In Civil Engineering.*

JOHN P. MCMILLAN ..... Ainslie Glen.
EDWARD SANBORN MORRISON ..... Milltown, N. B.

*In Mining.*

BENJAMIN WESLEY HILLS ..... Halifax.
GERALD FRANCIS MURPHY ..... Halifax.

**BACHELOR OF LAWS.**

JAMES ROSS ARCHIBALD, B. A. (Dal.) .. Truro.
WILLIAM BOARDMAN ARMSTRONG ..... Truro.
LLOYD ALLISON COREY ..... Petitcodiac, N. B.
ALISTER FRASER, B. A. (Dal.) ..... Halifax.
JAMES ALBERT HANWAY ..... Truro.
JOHN HARVEY HEARN, B. A. (St. F. X.) Sydney.
EVERETT BRUCE JONAH, B. A. (U. N. B.) Fredericton, N. B.
JOSEPH THEOPHILE LEGER ..... Richibucto, N. B.
WILLIAM CHISHOLM MACDONALD, B. A.
(St. F. X.) ..... Bailey's Brook.
EWEN CAMERON MACKENZIE, B. A. (Dal.) Flat River, P. E. I.
JOSEPH WILLIS MARGESON ..... Berwick.
JOHN LAUCHLIN MORRISON ..... St. Peter's,
HENRY STUART PATTERSON, B. A. (Dal.) Tatamagouche.
JOSEPH NORMAN RITCHIE, B. SC. (McGill) Halifax.
RUPERT MAXIME RIVE, B. A. (St. Jos.) Caraquet, N. B.
ARTHUR HAWTHORNE RUSSELL ..... Dartmouth.
ARTHUR LAWRENCE SLIPP ..... Woodstock, N. B.

**DOCTOR OF MEDICINE AND MASTER OF SURGERY.**

SAMUEL RITTY BROWN ..... Shelburne.
JAMES GARFIELD BRUCE, B. A. (Dal.) .. Barney's River.
MICHAEL RICHARD MCGARRY, B. A.
(St. F. X.) ..... Margaree.
MOSES ELIJAH MCGARRY ..... Margaree.
WALTER LEONARD MACLEAN ..... Halifax.
ROBERT AUGUSTUS MACLELLAN ..... Goldboro.
WILLIAM ARTHUR MACLEOD ..... Lansdowne.
BYARD WILLIAM MOSHER ..... Kempt.
WELDON PATTON ..... Roslin.
FRANK HENRY REID ..... Nictaux.
RALPH OWEN SHATFORD ..... Halifax Co.

**BACHELOR OF ARTS.** *Ad eundem gradum.*

WILLIAM GIBDWOOD, B. A. (U. N. B.) Dalhousie, N. B.

CONFERRED DURING THE SESSION 1907-08.

**BACHELOR OF ENGINEERING.**

*(In Civil Engineering.)*

JOHN BURTON GILLIATT ..... Granville.

*(In Mining Engineering.)*

FREDERICK ALPIN GRANT ..... Halifax.

**BACHELOR OF ARTS.**

CATHERINE ISABELLE GOURLEY ..... Sheet Harbour.

# HONOURS, PRIZES, Etc., 1907-8.

### DIPLOMAS OF HONOUR.

CLASSICS.—*High Honours.*—Ethel Murphy, Nora Neill Power.

PHILOSOPHY.—High Honours.—Ernest Alexander Munro.

### DIPLOMAS OF GENERAL DISTINCTION.

*Great Distinction.*—George William Stairs, Roy Leitch, Mabel E. Goudge.

### GRADUATE PRIZE, MEDALS AND SCHOLARSHIPS.

UNIVERSITY MEDAL.—Ethel Murphy.

MEDICAL FACULTY MEDAL.—Walter L. Maclean.

AVERY PRIZE.—George William Stairs.

1851 EXHIBITION SCHOLARSHIP (Scientific Research).—H. Jermain Creighton, M. A.

RHODES SCHOLARSHIPS.—Ernest A. Munro (appointed by Dalhousie for N. S.), Rupert M. Rive, B. A. (appointed by St. Joseph's for N. B.), Roy Leitch (appointed by P. E. I.)

### UNDERGRADUATE PRIZES AND SCHOLARSHIPS.

*(Junior Entrance Scholarships):*

MACKENZIE BURSARY.—Robert A. Neish.

SIR WM. YOUNG SCHOLARSHIPS.—Lily H. Seaman (Prince of Wales), Vera B. Clay (Pictou), H. S. Davis (Truro), J. A. T. Weatherbee (New Glasgow), Helen D. Armitage (Halifax).

*(Special Prizes):*

WAVERLEY PRIZE (Mathematics).—Howard W. Matheson.

NORTH BRITISH BURSARY.—James D. MacLeod.

DRAWING PRIZE (First Year.)—James A. MacKay.

MINING SOCIETY SCHOLARSHIP.—Not awarded.

DR. LINDSAY PRIZE (Primary M. D. C. M.)—W. Stewart Lindsay, B. A.

# EXAMINATIONS, 1907-8.

## FACULTY OF ARTS AND SCIENCE.

### MATRICULATION.

#### By Examination.

Senior.—*Passed in certain subjects:* Grace J. Baker, *in Latin;* W. W. Malcolm, *in Greek;* Florence E. Dodd, *in German;* J. H. Fraser, *in Latin, Greek, French, and English.*

Junior.—*First Class Distinction:* Robert A. Neish.

*Passed.*—Arthur Frame.

*Passed in certain subjects:* Clare Giffin, *in Latin;* Beatrice E. Daviss, *in Algebra;* Alan M. James, *in Algebra;* Ferguson R. Little, *in Latin, Algebra and Geometry;* Reginald A. Major, *in English and History;* H. M. Reynolds, *in English and Geometry;* F. G. McAskill, *in History;* Hugh P. Bell, *in English, History and Mathematics;* Helen MacKay, *in French;* H. W. Schwartz, *in French;* Paul R. Flemming, *in English;* Lewis J. King, *in English History and Mathematics;* James C. MacDonald, *in all except Geometry;* A. G. Mackay, *in French;* A. M. Johnson, *in French;* C. C. Chipman, *in English;* J. J. MacRitchie, *in French;* D. R. McLean, *in Algebra and Latin.*

#### By Certificate.

Senior.—For Arts.—*Passed*—H. S. Davis, J. D. McLeod, Laura M. Raynor, Mary E. S. Smith.

*Passed in certain subjects:* Vera B. Clay, *in all except Algebra;* J. J. Eisnor, *in English, History, Algebra and Geometry;* Georgina M. McKay, *in Latin, English, Algebra and Geometry;* Mossie M. Munro, *in all except one Foreign Language;* C. Whidden, *in Latin, Greek, History, Algebra, English and Trigonometry.*

Junior.—For Arts.—*Passed*—Helen D. Armitage, Charlotte F. Boak, Helen R. Crichton, B. D. Earle, C. A. Earle, Helen C. Gunn, Owen B. Jones, Kenneth Leslie, Angus D. McDonald, Marion C. Outhit, Iva G. Prisk, Josephine E. Quinan, Margaret I. Ross, William A. Ross, J. A. T. Weatherbee, Elsie M. Wier.

*Passed in certain subjects:* Irene Archibald, *in all except two Foreign Language;* S. R. Balcom, *in French, History and Geometry;* H. M. Blois, *in all except one Foreign Language;* J. A. Doull, *in all except Latin;* P. R. Flemming, *in Latin, Algebra and Geometry;* C. L. Gass, *in all except Greek;* Ella G. Holder, *in all except Latin;* G. A. L. Irwin, *in all except Latin;* A. M. James, *in all except Algebra;* M. D.McLeod, *in English, History and Mathematics;* Emily B. Kendall, *in all except Algebra;* Jean E. MacGregor, *in all except Algebra;* Sara M. Morash, *in all except Latin;* W. G. Morrison, *in English, History and Mathematics;* W. J. G. Perry, *in English, History and Mathematics;* Henrietta M. Ritchie, *in French, History, English and Geometry;*

Gladys U. Smith, *in French, History and Mathematics;* Florence M. Stewart, *in all except Mathematics;* Athea F. Sutherland, *in all except one Foreign Language;* G. M. Sylvester, *in all except Latin;* W. A. Whidden, *in Geometry;* Georgina M. McKay, *in French and History;* W. B. McLean, *in all except one Foreign Language.*

FOR SCIENCE.—*Passed in certain subjects:* J. L. Roy, *in all except one Foreign Language.*

## SUPPLEMENTARY EXAMINATIONS.

LATIN 1.—T. M. Creighton, A. K. Herman; (*Dec. Exam.*), A. J. Lawrence; (*Apr. Exam.*), Kathleen MacAloney.

LATIN 2.—(*Dec. Exam.*), L. J. King; (*Apr. Exam.*), Cassie I. Gourley.

LATIN 3.—Cassie I. Gourley.

GREEK 2.—(*Dec. Exam.*), A. E. MacKinnon.

FRENCH 1.—Dan MacLeod, J. A. Murdoch, G. E. Rice, A. T. Macdonald.

FRENCH 2.—J. J. MacRitchie.

ENGLISH 1.—Nora Cutler, Nora O'Brien, W. R. Dickie, G. Wiswell.

ENGLISH 2.—Martha E. Dewis.

PHILOSOPHY 1.—J. C. Crowe.

GEOMETRY.—Helen A. Marshall, J. R. Anderson, Dorothy C. Gorham, Marguerite H. Silver, Frances M. Cunningham.

ALGEBRA.—Helen A. Marshall, Laurie B. Browne, Frances M. Cunningham, A. McKay.

TRIGONOMETRY.—Frances M. Cunningham.

PHYSICS 1.—A. R. Campbell, Mabel E. McLeod, H. S. Tolson.

CHEMISTRY 1.—R. M. Macleod, Helen A. Marshall.

CHEMISTRY 1A.—W. F. Barnes, J. C. Crowe, Agnes M. Dennis.

ELOCUTION.—R. L. Titus.

ASTRONOMY.—D. R. McLean, Elizabeth Maycock.

HARMONY (*First Year*) Part II.—Thorne, Emilie; MacKay, Helen S.

## DEGREE EXAMINATIONS.

### CLASS LISTS.

**Names in "Class I" and "Class II" are in Alphabetical Order Names under Heading "Passed" are in Order of Merit. The Asterisk indicates a High First Class.**

LATIN—*Elementary—Passed*—Sylvester, G. McD.; King, L. J.; Doull, J. A.; Silver, H. E.; Morrison, W. G.; (Archibald, Irene; Morash, Sara); (Smith, Gladys U.; Ritchie, Henrietta). *Passed Special Examination*—Morrison, J. L.

LATIN 1.—*Class I.*—Gass, C. L.; MacDonald, J. C.; Neish, R. A.; Stewart, Florence M.; Wier, Elsie. *Class II.*—Armitage, Helen D.; Outhit, Marion C.; Weatherbee, J. A. *Passed*—(MacDonald, A. D.; Ross, Margaret I.); Jones, O. B.; Marsters, Gladys M.; Hall, T. R.; (Boak, C. Fillis; Gunn, Helen; McLean, W. B.; Sylvester, G. McD.); Archibald, J. T.; Hay, C. G.; Earle, C. A.; (MacGregor, Jean E.; Roper, J. S.); (Blois, H. M.; Ross, W. A.); Dewis, Martha E.; (Earle, B. D.; Flemming, P. R.); (Doull, J. A.; Kendall, Emily E.); Leslie, K.; Munro, Mossie M.; Balcom, S. R. *Passed the December Examination*—Ritchie, Henrietta; Sutherland, Althea. *Passed the April Examination*—O'Brien, Nora E.; Rice, G. E. A.

LATIN 2.—*Class I.*—Davis, H.; Livingstone, G. C.; Smith, M. Lenore. *Class II.*—Giffin, Amy Clare; Kemp, H. F.; MacIntosh, J. P.; MacLeod, J. D.; Raynor, Laura; Silver, Marguerite, H. L. *Passed*—Rudin, H. A.; Duffy, L. L.; Robertson, A. W.; MacKay, Georgie M.; Baker, Grace J.; (Archibald, A. A.; Murray, C. D. R.); Smith, Gladys; MacKenzie, C. E.; Inglis, R. E.; Ross, A.; (Clay, Vera; Smith, Mary E.); Forbes, E. M.; MacMillan, Victoria K.; (Irwin, Margaret; Umlah, Alberta; Wiswell, G. B.); (Macdonald, Annie J.; Whidden, W. A.; Gorham, Dorothy C.; (McLennan, J. C.; McNeil, J.); (Chisholm, S. J.; Lawrence, A. J.; Marshall, Helen A. B.; Porter, A. M.; Sinclair, D. C.); (Creighton, T. M.; Mack, F. G.); (Herman, G. E.; Whitman, Katherine); Cornelius, J. R.; Milligan, F. M.; Thompson, L. M.; (Chase, Margaret; MacAloney, Kathleen I.; McDonald, D. W.). *Passed the December Examination*—Ferguson, C. S.; Herman, A. K.; Leslie, E.; MacKay, J. F.; Prisk, Grace; Quinan, Josephine. *Passed the April Examination*—Creelman, Amelia; Dickie, W. R.

LATIN 3.—*Class I.*—Armitage, W. R.; Goudge, Mabel E.; Macdonald, Madge E.; Maycock, Elizabeth J.; *Murphy, Clare; *Murphy, Ethel; *Power, Nora Neill; Seaman, Lily H.; *Stewart, J. McG. *Class II.*—Hill, Ruby; Leitch, R.; McLeod, Mabel E.; Webber, Kathleen J. *Passed*—Read, J. E.; Walker, Eliza C.; Bayer, Jean G.; (Cunningham, F. Muriel; Sibley, Lena M.); Tupper, Grace M.; (Archibald, F. R.; Black, C. G.); Marshall, Helen A. B.; Munro, E. A.; (Crowell, S. W.; Grant, Frances H.); (Archibald, J. T.; Mackay, A. G.; MacKinnon, A. E.; Muise, J. B.); (Porter, Sadie E.; Thomson, Effie M.); Thomas, A. O.; Butler, G. K.

GREEK—*Elementary—Passed*—Fraser, J. A.; McLeod, M. D.; McLean, W. B.; McLean, D. R.

GREEK 1.—*Class I.*—*Murphy, Clare; Wier, Elsie. *Class II.*—Armitage, Helen D.; Neish, R. A.; Weatherbee, J. A.. *Passed*—MacDonald, J. C.; McDonald, A. D.; Hay, C. G.; (Earle, C. A.; Ferguson, C. S.; McLennan, J. C.); Milligan, F. M.; (Earle, B. D.; Fraser, J.). *Passed the December Examination*—Leslie, K.; McDonald, D. W.

GREEK 2.—*Class II.*—Kemp, H. F.; Smith, Mary E. *Passed*—Robertson, A. W.; (Irvine, G. W.; King, L. J.); MacIntosh, J. P.; (Malcolm, W. W.; Thomas, A. O.; Whidden, W. A.); Rosborough, W. B.; (Cornelius, J. R.; Creighton, T. M.). *Passed the April Examination.*—McDonald, D. W.

GREEK 3.—*Class I.*—Armitage, W. R.; Goudge, Mabel E.; *Murphy, Ethel; *Power, Nora N.; *Stewart, J. McG. *Passed*—Webber, Kathleen J.; McLeod, Mabel E.; MacKinnon, A. E.; Porter, A. M. *Passed the April Examination*—McLean J. G.

FRENCH 1.—*Class I.*—Gass, C. L. *Passed*—Archibald, Irene; James, A. M.; Blois, H. M.; Leslie, K.; (Bethune, R. O.; Chisholm, S. J.

FRENCH 2.—*Class I.*—*Baker, Grace J.; Clay, Vera; Holder, Ella; Mack, F. G.; MacLeod, J. D.; Outhit, Marion C.; Raynor, Laura M.; Smith, Gladys M. *Class II.*—Hemphill, Annie G.; Inglis, Katherine; Marsters, Gladys M.; Munro, Mossie M.; Ross, A.; Ross, Margaret I.; Ross, W. A.; Umlah, Lillie A. *Passed*—Jones, O. B.; Forbes, E. M.; Morash, Sara M.; (Inglis, R. E.; Prisk, Iva Grace); Hall, T. R.; Silver, H. E.; Dewis, Martha E.; (Smith, Gladys U.; Sylvester, G. M.); Roy, J. L.; Roper, J. S.; MacKay, Georgie M.; (Doull, J. A.; Herman, A. K.; Stewart, Florence M.); Dickie, W. R.; Herman, G. E.; (Macdonald, A. T.; O Brien, Nora.)

FRENCH 3.—*Class I.*—Cutler, Nora F.; Giffin, Clare; Hill, Ruby; Livingstone, G. C.; *Macdonald, Madge; *Murphy, Clare; Silver, Marguerite; *Seaman, Lily H. *Class II.*—Gorham, Dorothy C.; Rudin, H. A.; Sibley, Lena M.; Smith, Lenore. *Passed.*—Duffy, L. L.; MacKay, Helen; Butler, G. K.; Tupper, Grace M.; Archibald, A. A.; Maycock, Elizabeth J.; Cunningham, F. Muriel; Thomson, Effie M.; Smith, A. W. L.; Irwin, Margaret J.

GERMAN 1.—*Class I.*—Gunn, Helen C.; *MacKay, Helen S.; Munro, Mossie M.; *Stewart, J. McG. *Class II.*—McGregor, Jean. *Passed*—Kendall, Emily; Muise, J. B.; Bell, H. P.

GERMAN 2.—*Class I.*—*Goudge, Mabel E.; *Mackenzie, C. E. *Class II.*—Bowes, Florence J. *Passed*—Archibald, A. A.; Roper, J. S.; Thompson, L. M.

GERMAN 3.—*Class I.*—Baker, Grace J.; Cutler, Norah F.; Silver, Marguerite H. L.; *Stairs, G. W. *Class II.*—Giffin, Clare; Marshall, Helen A. B. *Passed*—Whitman, Katherine; Smith, A. W. L.; Inglis, R. E.; Titus, R. L.

KELTIC 2.—*Class II.*—Macdonald, Angus D.; MacInnes, C. J.; Munro, K. M. *Passed*—MacLeod, R.; Maclennan, J. C.; Fraser, J.; Macleod, M. D.

ENGLISH 1.—*Class I.*—Gunn, Helen C. *Class II.*—Kendall, Emily B.; McDonald, A. D.; Outhit, Marion C.; Sylvester, G. M.; Neish, R. A.; Smith, Gladys U. *Passed*—Stewart, Florence M.; Gass, C. L.; Jones, O. B.; Ross, Margaret I.; Armitage, Helen D.; Macdonald, J. C.; Archibald, Irene; Earle, C. A. M.; MacGregor, Jean E.; Bethune, R. O.; Bell, H. P.; Doull, J. A.; Wier, Elsie May; Morash, Sara M.; Rice, G. E. A.; Crichton, Helen; Earle, M. D.; Little, F. R.; Ritchie, Henrietta McC.; Ross, W. A.; Ray, J. L.; Blois, H. M.; Reynold, H. M.; Holder, Ella G.; Major, R. A.; Perry, W. J. G.; Weatherbee, J. A. T.; James, A. McK.; McLean, W. B.; Silver, H. E.; McLeod, A.; Leslie, K.

ENGLISH 2.—*Class I.*—Davis, H.; Hall, T. R.; Kemp, H. F.; MacIntosh, J. P.; Macleod, J. D.; Raynor, Laura M.; Smith, M. Lenore; Umlah, L. Alberta B. *Class II.*—Archibald, A.; Clay, Vera B.; Cunningham, Katherine H.; Cutler, Nora F.; Duffy, L. L.; Hay, C. G.; Livingstone, G. C.; Mackay, Georgie M.; Marsters, Gladys M.; Munro, Mossie M.; Prisk, I.Grace; Roper, J. S.; Rudin, H. A.; Thorne, Emilie; Whidden. W. A. *Passed*—Milligan, F. M.; Robertson, A. W.; Macdonald, A. T.; Smith, Gladys M.; Ross, A.; Mack, F. G.; Dewis, Martha E.; Smith, Mary E. S.; Irwin, Margaret J.; Whitman, Catherine McN.; Gorham, Dorothy C.; Cornelius, J. R.; Wiswell, G. B.; Forbes, E. M.; MacAloney, Kathleen I.; Macdonald, Victoria A.; Learment, J. D.; Sutherland, A.; Silver, Marguerite H. L.; Creighton, T. McC.; Mackenzie, C. E.; Murray, C. D. R.; Dickie, W. R.; McLennan, K.; Chisholm, S.; Herman, A. K.; Thompson, L. M.; Herman, G. E.; Leslie, E.; Colquhoun, Elizabeth S.; O'Brien, Nora E.

ENGLISH 5.—*Class I.*—Browne, Laurie D. W.; *Giffin, Amy C.; Leitch, R. *Class II.*—Macmillan, Victoria K.; Rosborough, W. B.; Tolson, H. S.; Tupper, Grace M. *Passed*—Macdonald, Madge E.; Murphy, Clare; Stairs, G. W.; Seaman, Lily H.; Sibley, Lena M.; Dennis, Agnes M.; McLeod, Mabel E.; Cunningham, Frances M.; McDonald, D. W.; Quinan, Josephine; Hamilton, J. H.; McDonald, A. Josephine; Porter, Sarah E.; Chase, Margaret C.; Thomas, A. O.; Walker, Eliza C.; Armitage, W. R.; Baker, Grace J.; Sinclair, D. C.; Maycock, Elizabeth J.; McKay, A.; McKay, A. G.; Webber, Kathleen J.; Archibald, J. T.; Hill, Ruby; Irvine, G. W.; Creelman, Amelia A.; Ferguson, C. S.; Gillis, John J.; McInnes, C. J.; Mackay, Helen S.; Inglis, R. E.; Munro, K. McL.; Fraser, J. A.; McKay, J. F.; Black, C. G.; McLean, J. G.; McNeil, J.; Smith, A. W. L.; Lawrence, A. J.; Porter, A. M.

ENGLISH 6.—*Passed*—Macmillan, Victoria K.

ELOCUTION.—*Passed*—MacLeod, J. D.; Gass, C. L.; McKay, Georgie M.; Seaman, Lily H.; Davis, H.; Whidden, W. A.; Clay, Vera B.; Prisk, Grace; McLeod, M. D.; Neish, R. A.; McLeod, A.; MacDonald, D. M.; Doull, J. A.; Eisnor, J. J.; Leslie, K.; Wier, Elsie M.; Smith, Gladys; Outhit, Marion C.;

Weatherbee, J.; Earle, C. A. M.; Munro, M. M.; McLean, W. B.; Stewart, Florence M.; Sylvester G. M.; Armitage, Helen D.; Bell, H. P.; James, A.; Macgregor, Jean E.; Kendall, Emily B.; Smith, Mary E.; Earle, B. D.; Reynolds, H. M.; Ross, W. A.; Blois, H. M.; Ritchie, Henrietta; Gunn, Helen C.; Ray, J. L.; Perry, W. J.; Morash, Sara; Archibald, Irene; Knowlton, J. E.; MacDonald, J. C.; Raynor, Laura M.; Jones, O. B.; Bethune, R. O.; Balcolm, S. R.; Major, R. A.; Little, F. R.

HISTORY 1.—*Class I.*—McLeod, Mabel E.; Maycock, Elizabeth; Tupper, Grace. *Class II.*—Hay, C.; Read, J.; Webber, Kathleen J. *Passed*—Walker, Eliza; Seaman, Lily; Hill, Ruby; Crowell, S. W.; Black, C. G.; Dewis, Martha; Archibald, F.; Munro, Mossie M.; Hall, T.; Marsters, Gladys M.; Sibley, Lena; Porter, Sarah; McKay, A.; King, L. J.; Munro, K.; Thomas, A. O.; Butler, G. K.; Crowe, J. C.; McLean, J. G.; McLennan, J. C.; Muise, J. B.; Rosborough, W. B.; McDonald, D. W.; Rice, G. E.; Landry, R. W.; Fraser, J. A.

HISTORY 2.—*Class I.*—Browne, Laurie, B. W.; *Leitch, R.; McMillan, Victoria; Smith, A. W. L.; Stairs, G. W. *Passed*—Sinclair, D.; Smith, Minnie; Tolson, H.; Cunningham, Frances; McKinnon, A. E.; Gillis, John; Archibald, J. T.; Inglis, R. E.

HISTORY 3.—*Class I.*—McMillan, Victoria.

POLITICAL ECONOMY, 1.—*Class I.*—Creelman, Amelia; Leitch, R.; McDonald, Annie J.; Maycock, Elizabeth; *Read, J. E.; *Class II.*—MacMillan Victoria; Walker, Eliza; Webber, Kathleen. *Passed*—Tupper, Grace; McLeod, Mabel; Sutherland, A.; Black, C. G.; Chase, Margaret; McKay, A.; Marsters, Gladys; Tolson, H.; Fraser, J.; Murray, C. D. R.; Ferguson, C.; Hay, C.; Sibley, Lena; Cameron C. B.; Duffy, L.; McKay, A. G.; Whitman, Katherine M.; McLean, J. G.; Thomson, Effie; Munro, K.; Rudin, H.; Milligan, F.; Butler, G. K.; Livingstone, G.; Archibald, J. T.; Inglis, R.; Lawrence, A.; McLennan, J. C.; Thompson, L. M.; Hemphill, Annie; Crowe, J. C.; Learment, J.; Forbes, A. G.

POLITICAL ECONOMY 2.—*Class I.*—Sinclair, D. C. *Class II.*—McRitchie, J. J.

PHILOSOPHY 1.—*Logic and Psychology.*—*Class I.*—Duffy, L. L.; Kemp, H. F.; Livingstone, G. C.; MacIntosh, J. P.; McLeod, J. D.; *Seaman, Lily H.; Smith, M. Lenore. *Class II.*—Archibald, A. A.; Hay, C. G.; Milligan, F. M.; Prisk, I. Grace; Raynor, Laura M.; Ross, A.; Smith, Mary E. *Passed*—Hall, T. R.; Marsters, Gladys M.; MacKay, Georgina M.; Clay, Vera B.; Cutler, Nora F.; Rudin, H. A.; Whidden, W. A.; Gorham, Dorothy C.; Muise, J. B.; Irwin, Margaret J.; Forbes, E. M.; Robertson, A. W.; Dickie, W. R.; Silver, Marguerite; Thompson, L. M.; Dewis, Martha E.; Mack, F. G.; Umlah, L. Alberta; McLennan, K. J.; MacAloney, Kathleen I.; Whitman, Katie M.; Roper, J. S.; Wallace, C. C.; Smith, Gladys M.; McLennan, J. C.; Murray, C. D. R.

PHILOSOPHY 5.—*Metaphysics—Class I.*—Goudge, Mabel E.; Leitch, R.; Munro, E. A.; *Stairs, G. W. *Passed*—Archibald, J. T.; Malcolm, W. W.; MacKinnon, A. E.

PHILOSOPHY 6.—*Ethics—Class I.*—*Munro, E. A.; Rosborough, W. B. *Class II.*—Macdonald, A. Josephine. *Passed*—Crowell, S. W.; Bayer, Jean G.; Malcolm, W. W.; Black, C. G.; McKay, A.; Munro, K. M.; King, L. J.; McInnes, C. J.; Ferguson, C. S.; Irvine, G. W.; McDonald, D. W.; Mackay, M.; MacKay, J. F.; Tolson, H. S.; Fraser, J. A.

PHILOSOPHY 7.—*Kant—Class I.*—Munro, E. A. *Passed*—Mackay, B. Lois, B. A.; Rettie, A., B. A.; Watson, R. A., B. A.

PHILOSOPHY 8.—*Sociology—Class I.*—*Stairs, G. W. *Class II.*—Munro, E. A.; Rosborough, W. B. *Passed*—Scrimgeour, J. A.; MacRae, H. F.; Watson, R. A.; Milligan, F. M.; Grant, W. P.; Girdwood, W.; McKay, A.; McLeod, R.; Malcolm, W. W.; MacIntosh, J. P.; Hamilton, J. H.; Munro, K. M.; Bayer, Jean G.; Dennis, Agnes M.; McDonald, W.; MacKeigan, J. A.; McLean, D. R.; Gillies, J. J.; MacKay, B. Lois; Black, C. G.; McKay, A. G.; Manuel, M. H.; Rettie, A.; Robertson, A.W.; Macdonald, A. Josephine; Lawrence, A. J.; Miller, J. R.; Porter, Sarah E.; Creighton, T. M.; Cameron, D. A.; MacInnes, C. J.; Crowe, J. C.; Porter, A. M.; MacKay, J. T.

EDUCATION 2.—*Class I.*—Baker, Grace J.; Bayer, Jean G.; Leitch, R. *Class II.*—Brown, Laurie B. W.; Hill, Ruby; Macdonald, A. Josephine; McLeod, Mabel E.; Munro, K. M. *Passed*—Hamilton, J. H.; Malcolm, W. W.; Webber, Kathleen J.; Creelman, Amelia A.; Muise, J. B.; Marshall, Helen A. B.; McMillan, Victoria K.; Tolson, H. S.; Porter, Sarah E.; McKay, A.; MacKinnon, A. E.; Ferguson, C. S.; Wallace, C. C.; Grant, Frances H.; Chase, Margaret C.; Porter, A. M.; Irvine, G. W.; McDonald, D. W.; Thomson, Effie M.; Tupper, Grace M.

MATHEMATICS, 1.—*Class I.*—Armitage, Helen; Bell, H. P.; McDonald, A. D.; Weatherbee, J. A. *Class II.*—Blois, H. M.; Gunn, Helen; Gass, C. L.; Holder, Ella; McLean, W. B.; Morash, Sara; Roy, J. L.; Smith, Gladys U. *Passed*—Flemming, P. R.; Sylvester, G. M.; Outhit, Marion; Stewart, Florence; Archibald, Irene; Jones, O. B.; Irvine, G. W.; James, A. M.; McGregor, Jean; Morrison, W. G.; Doull, J. A.; Earle, C. A.; McKay, A. G.; Wier, Elsie; McDonald, J. C.; Little, F. R. *Passed in Geometry*—Cutler, Nora. *Passed in Algebra*—Cutler, Nora; Tolson, H. S.; McKay, A. *Passed in Trigonometry*—Tolson, H. S.

MATHEMATICS 2.—*Analytical Geometry and Calculus—Class II.*—O'Brien, Nora. *Passed*—Davis, H.; Ross, A.; McKenzie, C. J.; Crowell, S. W.

MATHEMATICS 3.—*Calculus—Class I.*—*Read, J. E.

PHYSICS 1.—*Class I.*—Davis, H. S.; Goudge, Mabel E.; Read, J. E. *Passed*—Kemp, H. F.; Inglis, R. E.; Walker, Eliza; (Silver, Marguerite H. L.; Whidden, W. A.); Cutler, Nora F.; Ferguson, C. S.; Milligan, F. M.; Chase, Margaret C.; Mac-

Intosh, J. P.); Bayer, Jean G.; DeBlois, T. M.; Butler, G. K.; (Cameron, A. A.; Grant, Frances H.); (Creelman, Amelia; Rosborough, W. B.; Wiswell, G. B.); Smith, Mary E.

ACOUSTICS (*for B. Mus. Degree*).—*Class II.*—Daviss, Beatrice E. *Passed*—(MacKay, Helen S.; Thorne, Emilie); Crichton, Helen R.

PHYSICS 2 A.—*Passed*—Wallace, C. C.

PHYSICS 6.—*Class II.*—Campbell, A. R.; Wallace, C. C.

CHEMISTRY 1.—*Passed*—Stewart, J. McG.; Clay, Vera; Muise, J. G.; Munro, Mossie M.; Gunn, Helen C.; McDonald, A. D.; Gorham, Dorothy C.; Smith, Mary E.; (Morash, Sara; Outhit, Marion; Roper, J. S.); (Blois, H. M.; Jones, O. B.); Archibald, Irene; Gillies, J. J.; Earle, C. A. M.; Armitage, Helen D.; Silver, H. E.; MacDonald, J. C.; McLean, W. B.

CHEMISTRY 1A.—*Class I.*—Gass, C. L.; Macdonald, Madge E.; *Murphy, Clare; Sylvester, G. M.; Weatherbee, J. A. *Class II.*—Bell, H. P.; Collie, J. R. M.; Doull, J. A.; Flemming, P. R. *Passed*—Ray, J. L.; Reynolds, H. M.; Bethune, R. O.; Dickie, W. R.; (For Arts and Science), Little F. R.

CHEMISTRY 2.—*Class I.*—Davis, H. S.; DeBlois, T. M.; Matheson, H. W. *Class II.*—Murray, C. D. R. *Passed*—Wiswell, G. B.

CHEMISTRY 5.—*Passed*—DeBlois, T. M.

GEOLOGY 1.—*Class I.*—Stairs, G. W.

GEOLOGY 2.—*Class I.*—Cameron, D. A.; Cunningham, Frances M.; Lawrence, A. J.; Macdonald, Madge; *McLeod, J. D.; *Seaman, Lily H.; Smith, M. Lenore; Umlah, L. Alberta B. *Class II.*—Forbes, A. G.; Marshall, Helen A. B.; McLean, J. G.; Sinclair, D. C. *Passed*—Thomas, A. A.; Whitman, Katherine M.; Clay, Vera B.; Archibald, A.; Forbes, E. M.; Porter, Sarah E.; Macdonald, A. Josephine; McKay, A. G.; Dickie, W. R.; MacKay, George M.; Smith, Gladys M.; Robertson, A. W.; Duffy, L. L.; MacNeil, J.; McLennan, J. C.; Irvine, G. W.; Livingstone, G. C.; Rudin, H. A.; McDonald, D. W.; Porter, A. M.; Herman, G. E.; Herman, A. K.; MacKay, M.; Fraser, J.; Morrison, W. G.; McLennan, K. J.

BIOLOGY.—*Class I.*—*Read, J. E. *Class II.*—Cunningham, Frances M. *Passed*—Dennis, Agnes M.; Cameron, A. A.

HARMONY *(First Year).—Passed (Parts I and II)*—Daviss, Beatrice. *Passed (Part I)*—MacKay, Helen S.; Thorne, Emilie.

# FACULTY OF ENGINEERING.

## MATRICULATION.

BY EXAMINATION.

JUNIOR.—*Passed without a Foreign Language*—J. G. Cutler.

*Passed in certain subjects*—Walter Mitchell, *in French, English and History;* E. S. Kent, *in English;* E. S. Morrison, *in English.*

BY CERTIFICATE.

SENIOR.—*Passed with a Foreign Language*—D. Stairs.

JUNIOR.—*Passed with a Foreign Language*—J. L. Cavanagh, E. W. G. Chapman, D. M. Collingwood, C. S. Creighton, R. P. Freeman, R. M. MacIntosh, N. C. MacRae, L. A. Mylius, G. S. Stairs.

*Passed without a Foreign Language*—C. C. Chute, W. E. Hall, W. E. Hillis, M. M. Layton, J. A. MacKay, D. R. McKean.

*Passed in certain subjects*—G. M. Brown, *in English and Mathematics;* J. A. Campbell, *in English, History and Geometry;* J. A. McGillivray, *in English, History and Geometry;* W. Mitchell, *in Mathematics;* J. R. Simmonds, *in French, English, History and Geometry;* C. H. Williston, *in German, English, History and Geometry;* A. S. Wall, *in English and History.*

## SUPPLEMENTARY EXAMINATIONS.

FRENCH 2.—E. B. Allan.

GEOMETRY.—J. G. Macdonald.

ALGEBRA.—A. Ferguson, N. C. Ralston, T. M. DeBlois.

ANALYTIC GEOMETRY.—E. L. Thorne, E. B. Allan, G. B. McCunn.

CALCULUS.—G. B. McCunn, G. A. Gaherty, H. W. Fleming.

PHYSICS 1.—B. W. Hills, T. W. Hardy, A. Ferguson.

CHEMISTRY 1.—W. K. Fraser, N. C. Ralston.

DRAWING 1.—N. W. MacKay.

DRAWING 2.—G. A. Gaherty, E. L. Thorne.

SURVEYING 1.—F. R. Archibald.

ASTRONOMY.—E. S. Morrison.

MECHANICS.—H. W. Flemming.

## DEGREE EXAMINATIONS.

### CLASS LISTS.

**Names in "Class I" and "Class II" are in Alphabetical Order**
**Names under heading "Passed" are in Order of Merit.**
**The Asterisk indicates a High First Class.**

ENGLISH 1, *Class II.*—Collingwood, D. M. *Passed*—Mylius, L. A.; MacKay, J. A.; Simmonds, J. R.; Cutler, J. G.; McKean, D. R.; Mitchell, W.; Hillis, Wilfred E.; MacGillivary, J.; Stairs, G. S.; Hall, W. E.; Williston, C. H.; Chute, C. C.; Macdonald, J. G.; MacIntosh, R. M.; MacRae, N. C.; Chapman, E. W. G.; Freeman, R. P.; Layton, M. M.; Brown, G. M.

ELOCUTION—Passed—McGillivary, J.; Mylius, L. A.; Collingwood, D. M.; Hall, W. E.; McLean, D.; Campbell, J. A.; McKean, D. R.; Cavanagh, J. L.; MacKay, J. A.; Williston, C. H.; Layton, M. M.; Hillis, W. E.; Freeman, R. P.; Creighton, C. S.; Cutler, J. G.; Chute, C. C.; MacIntosh, R. M.; Mitchell, W.; MacRae, N. C.; Mitchell, E. F.; Macdonald, J. G.; Brown, G. M.; Stairs, G. S.

FRENCH 1.—*Passed*—Matheson, H. W.; Freeman, R. P.; Flemming, P. R.; McGillivray, J.

FRENCH 2.—*Class II.*—Simmonds, J. R. *Passed*—McRae, N. C.; (Collingwood, D. M.; Stairs, G. S.); Archibald, F. R.; Mylius, L. A.; Dawson, F. M.; Mitchell, W.; Creighton, C. S.; Putnam, W.; (Cavanagh, J. L.; Macdonald, C. H.; Ralston, N. C.)

GERMAN 1.—*Passed*—Williston, H.; MacKay, J. A.; McKean, D. R.; Hillis, W. E.

GERMAN 2.—*Passed*—Matheson, H. W.

MATHEMATICS 1.—*Class I.*—Collingwood, D. H.; *MacKay, J. A. *Class II*—Freeman, R. P.; Mylius, L. A.; Stairs, G. S. *Passed*—McKeen, D. R.; Williston, C. H.; Cavanagh, J. L.; Chute, C. C.; Creighton, C. S.; MacIntosh, R. M.; Hillis, W. E.; Chapman, E. W.; Layton, M. M.; Simmonds, J. R. *Passed in Geometry*—McDonald, J. G.

MATHEMATICS 2.—*Class I.*—Matheson, H. W. *Class II.*—McDonald, C. H. *Passed*—Dawson, F.; Putnam, W.; Archibald, F. R.; Dimock, C. L.; Ferguson, A. *Passed in Calculus*—Gaherty, G. A.; Flemming, H. W. *Passed in Analytic Geometry*—Allan, E. B.

PHYSICS 1.—*Class II.*—McDonald, C. H. *Passed*—Putnam, W.; Matheson, H. W.; Dawson, F. M.; (Kent, E. S.; McColough, R. W.); Ralston, N. C.; MacKay, N. W.; Chisholm, K. G.

PHYSICS 2B.—*Class I.*—Stairs, Denis. *Class II.*—Mackenzie, C. J. *Passed*—Cavanagh, H.; Flemming, H. W.; McCunn, G. B.; Gaherty, G.; Crichton, G. L.; Cahan, J. F.

PHYSICS 6.—*Class I.*—Crowell, S. W.; Dawson, F. M. *Class II.*—Matheson, H. W.; McDonald, C. H.; Ralston, N. C.; *Passed*—McColough, R. W.; Dimock, C. L.; Chisholm, K. G.; Kent, E. S.; Wood, R. F. B.; (Allan, E. B.; Putnam, W.)

PHYSICS 7.—*Class II.*—MacMillan, J. P.; Murphy, G. F. *Passed*—Wall, A. S.; (Hills, B. W.; Morrison, E. S.)

CHEMISTRY 1A.—*Class I.*—Mackay, J. A. *Class II.*—Collingwood, D. M.; Mackean, D. R.; Mylius, L. A.; Stairs, G. S. *Passed*—Freeman, R. P.; Cavanagh, J. L.; McKinnon, R. W.; (Chute, C. C.; Mitchell, E. F.; MacGillivray, J.; MacRae, N. C.; Hillis, W. E.; Creighton, C. S.; McLeod, A.; Wood, R. F. B.

CHEMISTRY 4.—*Class II.*—Dawson, F. M.; Putnam, W. *Passed*—McDonald, C. H.; Kent, E. S.; Mackay, N. W.; Dimock, C. L.; Chisholm, K.; Fraser, W. K.; Ralston, N. C.

CHEMISTRY 7.—*Class I.*—Wallace, C. C. *Class II.*—Campbell, A. R.; Murphy, G. F. *Passed*—McCunn, G. B.; Mahon, H. W.; DeBlois, F. M.; Hardy, T. W.); Hills, B. W.

GEOLOGY 1.—*Passed*—Gaherty, G. A.; McKay, N. W.; Stairs, D.; Cavanagh, H. (provisional); McKenzie, C. J.; Mahon, H. W.; Thorne, E. L.; Ferguson, A. (provisional) [as of 1906-7]; McMillan, J. P.; Morrison, E. S.; Crichton, G. L.; Flemming, H. W.

GEOLOGY 3.—*Passed*—Hardy, T. W.

GEOLOGY 5.—*Class II.*—McMillan, J. P. *Passed*—Morrison, E. S.; Wall, A. S.

GEOLOGY 6.—*Class II.*—Hills, B. W.: Murphy, G. F. *Passed*—Hardy, T. W.; McCunn, G. B.

MINERALOGY 1.—*Class II.*—Hardy, T. W.; *Passed*—Mahon, H. W.

DRAWING, I.—*Class I.*—Collingwood, D. M.; Freeman, R. P.; MacKay, J. A. *Class II.*—Brown, G. M.; Crowell, S. W.; MacKean, D. R.; MacRae, N. C.; Mylius, L. A.; Roy, J. L.; Williston, C. H. P. *Passed*—(Mitchell, E. F.; Reynolds, H. M.); Cavanagh, J. L.; McGillivray, J. A.; Stairs, G. S.; Simmonds, J. R.; Fraser, W. K.; Chute, C. C.; Hillis, W. E.; Mitchell, W.; Campbell, J. A.; (Layton, M. M.; McLean, D.)

DRAWING 2.—Kent, E. S.; Chisholm, K.

SURVEYING 1.—*Class II.*—Dawson, F. M.; Kent, E. S.; Putnam, W.; Wood, R. F. B. *Passed*—Ralston, N. C.; (McDonald, C. H.; Mahon, H. W.); McColough, R. W.; DeBlois, T. M.; MacDonald, J. G.; (Dimock, C. L.; McKinnon, R. W.); Chisholm, K.

SURVEYING 2.—*Class I.*—Stairs, D. *Class II.*—Cavanagh, H.; Crichton, G. L.; MacKenzie, C. J. *Passed*—Gaherty, G. A.; Thorne, E. L.

MECHANICS.—*Class I.*—*Stairs, D. *Passed*—Crichton, G. L.; Murphy, G. F.; MacKenzie, C. J.; Cavanagh, H.; Hills, B. W.; Gaherty, G. A. *Passed in Kinematics*—Hardy, T. W.; McCunn, G. R.

STRUCTURES 1.—*Class I.*—Stairs, D. *Class II.*—Cahan, J. F.; Cavanagh, H.; Crichton, G. L.; Gaherty, G. A.; MacKenzie, C. J.; Thorne, E. L.

STRUCTURES 2.—*Class II.*—MacMillan, J. P. *Passed*—Morrison, E. S.

RAILWAY ECONOMICS.—*Class II.*—MacMillan, J. P. *Passed*—Wall, A. S.; Morrison, E. S.; Flemming, H. W.

HYDRAULICS 1.—*Class I.*—*Stairs, D. *Class II.*—Cavanagh, H.; *Passed*—Murphy, G. F.; MacKenzie, C. J.; (Crichton, G. L.; Gaherty, G. A.); Hills, B. W.

HYDRAULICS 2.—*Class I.*—MacMillan, J. P.; Wall, A. S. *Class II.*—Morrison, E. S. *Passed*—Flemming, H. W.

GRADUATION THESIS.—*Class I.*—MacMillan, J. P. *Passed*—Morrison, E. S.

MINING 2.—*Passed*—Murphy, G. F.; Hills, B. W.

MINING 3.—*Passed*—Hills, B. W.; Murphy, G. F.

METALLURGY 1.—*Passed*—Hills, B. W.; Murphy, G. F.

METALLURGY 3.—*Class II.*—Murphy, G. F. *Passed*—Hills, B. W.; McCunn, G. B.

METALLURGY 4.—*Passed*—Murphy, G. F.; Hills, B. W.

METALLURGY 6.—*Class II.*—McMillan, J. P.; Wall, A. S. *Passed*—Morrison, E. S.; Flemming, H. W.

SUMMER THESIS.—*Class I.*—Gaherty, G. A. (The Blast Furnace); MacMillan, J. P. (Road Making in Nova Scotia); Wall, A. S. Iron and Steel). *Class II.*—Cahan, J. F. (Hydraulic Works on Laguna Dam, Mexico); Crichton, G. L. (Mine Timbering); Dawson, F. M. (G. T. P. Tunnel near La Tuque), DeBlois, T. M. (Rope Manufacture); Flemming, H. W. (Tract Construtcion and Paving); MacDonald, C. H. (Erection of the Hillsboro Bridge); MacKenzie, C. J. (The St. Stephen Water Supply); McColough, R. W. (A Coal Mine); McKinnon, R. W. (Sewerage Survey); Matheson, H. W. (Mine Surveying); Morrison, E. S. (Construction Work D I & S Co.'s Plant); Stairs D. (Generating Plant N. S. S. & C. Co.) *Passed*—Thorne, E. L. (Halifax Dry Dock); Ferguson, A. (Bridges and Viaducts); Kent, E. S. (Concrete Culverts); MacDonald, J. G. (I. C. R. Improvement at Truro); Cavanagh, H. (Halifax Dry Dock); Ralston, N. C. (Wharf Construction at Amherst); Putnam, W. (Railroad Construction Surveying); Wood, R. F. B. (Pulp and Paper Plant, Grand Falls, Nfld.); Eisnor, J. J. (Surveying of the Grounds of the Massachussetts School for the Feeble Minded); Dimock, C. L. (Dalhousie Camp, Chester Basin); Chisholm, K. (Paving of the Tramway Tracks, Halifax.)

ENGINEERING CAMP—*Attended*—Archibald, F. R.; Cahan, J. F.; Cavanagh, H.; Chisholm, K. G.; Crichton, G. L.; Dawson, F. M.; DeBlois, T. M.; Dimock, C. L.; Ferguson, A.; Fielding, R. W.; Flemming, H. W.; Gaherty, G. A.; MacKenzie, C. J.; McKinnon, R. W.; McMillan, J. P.; Matheson, H. W.; Morrison, E. S.; Ralston, N. C.; Stairs, D.; Thorne, E. L.; Wall, A. S.; Wickwire, D. S.; Wood, R. F. B.

# FACULTY OF LAW.

## DEGREE EXAMINATIONS.

### CLASS LISTS.

Names in *Classes I.* and *II.* in order of merit.
Names in *Pass List* in alphabetical order.

#### International Law.

*Class II.*—Patterson, H. S.; Archibald, J. R.; Russell, A. H.; Jonah, E. B.; Macdonald, W. C.; Morrison, J. L.; MacKenzie, E. C.

*Passed.*—Armstrong, W. B.; Corey, L. A.; Gillies, J. J.; Hanway, J. A.; Hearn, J. H.; Leger, J. T.; Ritchie, J. N.; Rive, R.; Slipp, A. L.

*Special Examination.*—Margeson, J. W.

#### Conflict of Laws.

*Class I.*—Patterson, H. S.; Jonah, E. B.; MacKenzie, E. C.

*Class II.*—Slipp, A. L.; Margeson, J. W.; Rive, R.; Morrison, J. L.; Ritchie, J. N.; Hanway, J. A.

*Passed.*—Armstrong, W. B.; Cahan, C. H.; Corey, L. A.; Fraser, A.; Gillies, J. J.; Hearn, J. H.; Leger, J. T.; Russell, A. H.

#### Constitutional Law.

*Class I.*—Menzie, H. W.; Martin, J. J.; Maclellan, R. W.

*Class II.*—Lordly, L. R.; Farquhar, G.; Farquhar, A.; Pelton, G. V.; Thomas, A. O.; Tolson, H. S.

*Passed.*—Cameron, D. A.; Chase, H. M.; Corey, L. A.; Frame, A. C.; MacKenzie, C.; McKinnon, A E.; Smith, D. C.

#### Shipping.

*Class I.*—Menzie, H. W.; Pelton, G. V.; Maclellan, R. W.; Robertson, R. B.

*Class II.*—Patterson, H. S.; Cameron, D. A.; MacKenzie, C.; Martin, J. J.; Morrison, J. L.; Sinclair, D. C.

*Passed.*—Craig, K. G.; Farquhar, A.; Frame, A. C.; Fraser, Alister; Hearn, J. H.; Lordly, L. R.; Prowse, J. H.; Smith, D. C.

#### Torts.

*Class I.*—Maclellan, R. W.; Macdonald, W. A.; Doull, J.

*Class II.*—Richard, E. R.; Robertson, R. B.; Farquhar, G.; Morton, A. C.; Robinson, L. M.; Cameron, J. J.

*Passed.*—Chapman, C. G. M.; Conroy, F. R.; Craig, K. G.; Landry, R. W. E.; Macdonald, S. J.; Maclean, M.; Rettie, S.

#### Constitutional History.

*Class I.*—Doull, I.; Richard, E. R.; Hall, T. R.; Macdonald, W. A.; Robinson, L. M.

*Class II.*—Stewart, J. M.; Rosborough, W. B.; Thomas, A. O.; Morton, A. C.; Roper, J. S.; Macneil, J.; Cameron, J. J.; Lordly, L. R.

*Passed.*—Black, C. B.; Chipman, C. R.; Conroy, F. R.; Craig, K. G.; Lawrence, A .J.; MacKay, A.; Munro, K. M.; Rice, G. E.

### EQUITY.

*Class I.*—Maclellan, R. W.; Menzie, H. W.; MacKenzie, C.; Macdonald, W. C.; Russell, A. H.; Martin, J. J.; Slipp, A. L.

*Class II.*—Robertson, R. H.; Gillies, J. J.; Hanway, J. A.; Pelton, G. V.; Chase, H. M.; Archibald, J. R.; Smith, D. C.; Jonah, E. B.; Lordly, L. R.

*Passed.*—Armstrong, W. B.; Cahan, C. H.; Corey, L. A.; Farquhar, A.; Frame, A. C.; Fraser, A.; Hearn, J. H.; Legere, J. T.; MacKenzie, E. C.; Morrison, J. L.; Patterson, H. S.; Prowse, J. H.; Rettie, S.; Ritchie, J. N.; Rive, R.; Temple, T. A.

### BILLS AND NOTES.

*Class I.*—Menzie, H. W.; Martin, J. J.; Maclellan, R. W.; Macdonald, W. C.; Robertson, R. H.

*Class II.*—Pelton, G. V.; Jonah, E. B.; Archibald, J. R.; Morrison, J. L.; MacKenzie, E. C.; Lordly, L. R.; Prowse, J. H.; Farquhar, G.; Slipp, A. L.

*Passed.*—Armstrong, W. B.; Cahan, C. H.; Chase, H. M.; Corey, L. A.; Farquhar, A.; Frame, A. C.; Fraser, A.; Gillies, J. J.; Hanway, J. A.; Hearn, J. H.; Legere, J. T. MacKenzie, C.; Patterson, H. S.; Rettie, S.; Ritchie, J. N.; Rive, R.; Russell, A. H.; Smith, D. C.

### CONTRACTS.

*Class I.*—Doull, J.; Stairs, G. W.; Macdonald, W. A.

*Class II.*—Cameron, I. I.; Farquhar, G.; MacNeil, J.

*Passed.*—Chapman, C. G. M.; Conroy, F. R.; Craig, K. G.; Lawrence, A. J.; Landry, R. W. E.; Macdonald, S. J.; Morton, A. C.; Richard, E. R.; Robinson, L. M.; Sinclair, D. C.

### PARTNERSHIP AND COMPANIES.

*Class I.*—Menzie, H. V.; (Maclellan, R. W.; Martin, J. J.); Pelton, G. V.; Ritchie, J. N.; Farquhar, A.; Patterson, H. S.; Armstrong, W. B.; Lordly, L. R.

*Class II.*—Prowse, J. H.; Jonah, E. B.; Archibald, J. R.; Clarke, C.; Cahan, C. H.; Corey, L. A.; Hearn, J. H.; MacKenzie, C.; Rive, R.; Hanway, J. A.; Morrison, J. L.; McKenzie, E. C.; Smith, D. C.; Frame, A. C.; Robertson, R. B.

*Passed.*—Cameron, D. A.; Chase, H. W.; Fraser, A.; Gillies, J. J.; Legere, J. T.; Rettie, S.; Russell, A. H.; Slipp, A. L.

### CRIMES.

*Class I.*—Doull, J.; Macdonald, W. A.; Cameron, J. J.

*Class II.*—Rettie, S.; Robertson, R. B.

*Passed.*—Chapman, C. G. M.; Chipman, C. R.; Conroy, F. R.; Corey, L. A.; Farquhar, G.; McDonald, S. J.; McKenzie, C.; McKenzie, E. C.; Morton, A. C.; Prowse, J. H.; Richard, E. R.; Robinson, L. M.

### WILLS.

*Class I.*—Menzie, H. W.; Martin, J. J.; Morrison, J. L.; Maclellan, R. W.

*Class II.*—MacKenzie, C.; Chase, H. M.; Robertson, R. B. H.; Lordly, L. R.; Gillies, J. J.; Frame, A.

*Passed.*—Rettie, S.; Doull, J.; Pelton, G. V.; Cameron, D. A.; Smith, D. C.; Farquhar, A.; Temple, T. A.

*Special Examination.*—Passed, Cahan.

### REAL PROPERTY.

*Class I.*—Doull, J.; Morton, A. C.; Cameron, D. A.; Craig, K. C.; Richard, E. R.

*Class II.*—Macdonald, W. A.; Conroy, F. R.; Robinson, L. M.; MacKenzie, C.; Cameron, J. J.; McDonald, S. J.; Macneil, J. A.; Landry, R. W. E.

*Passed.*—Robertson, R. B.; Chipman, C. R.; Farquhar, G.; Rettie, S.; Prowse, J. H.; Fraser, A.; Chapman, C. G. M.; Day, W. R.; Maclean, M.; Starr, A. P.

### EVIDENCE.

*Class I.*—Menzie, H. W.; Macdonald, W. A.; Chase, H. M.

*Class II.*—Robertson, R. H.; Farquhar, A.; Cameron, J. J.; MacKenzie, C.; Pelton, G. V.

*Passed.*—Gillies, J. J.; Lordly, L. R.; Rettie, S.

# FACULTY OF MEDICINE.

## GENERAL PASS LIST.

(Alphabetical Order.)

PRIMARY M. D., C. M. EXAMINATION.

*Section "A"—First Year.*

Atlee, H. B.; Cameron, C. B.; Collie, J. R. M.; Davis, F. R.; Goodwin, G. S.; Grant, H. G.; Hartigan, D. J.; Herdman, W. W.; Holdsworth, P. W.; Johnson, A. M.; †Johnston, S. R.; MacAulay, J. P.; MacLeod, D. A.; McLeod, J. R. B.; MacRitchie, J. J.; Murdoch, J. A. M.

*Section "B"—Second Year.*

Bober, Miss B. A.; Burris, M. G.; Coffin, W. V.; †Johnston, S. R.; Lindsay, W. S.; MacAulay, D. A.; MacDonald, J. J.; *Maclellan, E. K.; Roy, A. K.; Saunders, R. M.; Stramberg, C. W.

FINAL M. D., C. M. EXAMINATION.

*Section "A"—Third Year.*

Calder, Allister; Cox, F. A.; Davis, P. D.; Grant, H. A.; Hennigar, C. S.; Johnston, S. R.; MacDonald, J. A.; Maclellan, E. K.; Maclellan, R. G.; Moillet, A.K.

*Section "B"—Fourth Year.*

Brown, S. R.; Bruce, J. G.; McGarry, M. R.; McGarry, M. E.; Maclean, W. L.; MacLellan, R. A.; McLeod, W. A.; Mosher, B. W.; Patton, W. W.; Reid, F. H.; Shatford, R. O.

---

## DEGREE EXAMINATIONS.

CLASS LISTS.

(Alphabetical Order.)

MEDICAL PHYSICS.

*Distinction*—MacLeod, D. A.

*Passed*—Atlee, H. B.; Goodwin, G. S.; Grant, H. G.; Hartigan, D. J.; Herdman, W. W.; Holdsworth, P. W.; Johnson, A. M.; MacAulay, J. P.; McLeod, J. R. B.; Murdoch, J. A. M.

*Special Examination, April, 1906*—Collie, J. R. M.

*Supplementary, April, 1908*—Johnston, S. R.

JUNIOR CHEMISTRY.

*Distinction*—None.

*Passed*—Atlee, H. B.; Balcom, Miss B. E.; Davis, F. R.; Herdman, W. W.; Holdsworth, P. W.; Johnson, A. M.; McLeod, J. R. B.; Schwartz, H. W.

*Special, April, 1908*—Cameron, A. A.

---

* Supplementary, September, 1907.
† Supplementary, April, 1908.

BIOLOGY.

*Distinction*—None.

*Passed*—Atlee, H. B.; Balcom Miss B. E.; Barnes, W. F.; Davis, F. R.; Deveau, A. J.; Grant, H. G.; Hartigan, D. J.; Holdsworth, P. W.; Johnson, A. M.; MacAulay, J. P.; MacLeod, D. A.; McLeod, J. R. B.; MacRitchie, J. J.; Murdoch, J. A. M.; Schwartz, H. W.; Siderski, Louis.

*Supplementary, January, 1908*—Johnston, S. R.

*Special, April, 1908*—Cameron, A. A.

JUNIOR ANATOMY.

*Distinction*—Goodwin, G. S.; MacAulay, J. P.; MacLeod, D. A.

*Passed*—Atlee, H. B.; Balcom, Miss B. E.; Barnes, W. F.; Cameron, C. B.; Collie, J. R. M.; Davis, F. R.; Grant, H. G.; Hartigan, D. J.; Herdman, W. W.; Holdsworth, P. W.; Johnson, A. M.; McLeod, J. R. B.; MacRitchie, J. J.; Murdoch, J. A. M.; Schwartz, H. W.; Titus, R. L.

*Supplementary, April, 1908*—Brison, Miss E. P.

SENIOR CHEMISTRY.

*Distinction*—Coffin, W. V.; Lindsay, W. S.

*Passed*—Bober, Miss B. A.; Burris, M. G.; Horne, A. E.; MacAskill, F. G.; MacAulay, D. A.; MacDonald, J. J.; MacKay, Miss M. J.; Roy, A. K.; Saunders, R. M.; Stramberg, C. W.

*Special, April, 1908*—Chisholm, S. J.; Creighton, T. M.; Titus, R. L.

PHYSIOLOGY AND HISTOLOGY.

*Distinction*—Burris, M. G.; Lindsay, W. S.; Roy, A. K.

*Passed*—Bober, Miss B. A.; Coffin, W. V.; MacAskill, F. G.; MacAulay, D. A.; MacDonald, J. J.; Saunders, R. M.; Stramberg, C. W.

*Supplementary, September, 1907*—MacLellan, E. K.

SENIOR ANATOMY.

*Distinction*—Burris, M. G.; Coffin, W. V.; Lindsay, W. S.; MacDonald, J. J.

*Passed*—Bober, Miss B. A.; Horne, A. E.; MacAskill, F. G.; MacAulay, D. A.; Macdonnell, W. S.; MacKay, Miss M. J.; Roy, A. K.; Saunders, R. M.; Stramberg, C. W.

MATERIA MEDICA AND THERAPEUTICS.

*Distinction*—Hennigar, C. S.

*Passed*—Calder, Allister; Cox, F. A.; Davis, P. D.; Grant, H. A.; Johnston, S. R.; MacDonald, J. A.; Maclellan, E. K.; Maclellan, R. G.; Moilliet, A. K.

PATHOLOGY AND BACTERIOLOGY.

*Distinction*—Calder, Allister; Cox, F. A.; Davis, P. D.; Grant, H. A.; Hennigar, C. S.; MacDonald, J. A.; Moilliet, A. K.

*Passed*—Johnston, S. R.; Maclellan, E. K.; Maclellan, R. G.

MEDICAL JURISPRUDENCE AND HYGIENE.

*Distinction*—None.

*Passed*—Brown, S. R.; Bruce, J. G.; McGarry, M. R.; McGarry, M. E.; Maclean, W. L.; MacLellan, R. A.; McLeod, W. A.; Mosher, B. W.; Patton, Weldon W.; Reid, F. H.; Shatford, R. O.

SURGERY.

*Distinction*—Maclean, W. L.

*Passed*—Brown, S. R.; Bruce, J. G.; McGarry, M. R.; McGarry, M. E.; MacLellan, R. A.; McLeod, W. A.; Mosher, B. W.; Patton, Weldon W.; Reid, F. H.; Shatford, R. O.

CLINICAL SURGERY.

*Distinction*—None.

*Passed*—Brown, S. R.; Bruce, J. G.; McGarry, M. R.; McGarry, M. E.; Maclean, W. L.; MacLellan, R. A.; McLeod, W. A.; Mosher, R. W.; Patton, Weldon W.; Reid, F. H.; Shatford, R. O.

MEDICINE.

*Distinction*—MacLean, W. L.

*Passed*—Brown, S. R.; Bruce, J. G.; McGarry, M. R.; McGarry, M. E.; MacLellan, R. A.; McLeod, W. A.; Mosher, B. W.; Patton, Weldon W.; Reid, F. H.; Shatford, R. O.

CLINICAL MEDICINE.

*Distinction*—Maclean, W. L.; Maclellan, R. A.; Patton, Weldon W.; Reid, F. H.

*Passed*—Brown, S. R.; Bruce, J. C.; McGarry, M. R.; McGarry, M. E.; McLeod, W. A.; Mosher, B. W.; Shatford, R. O.

OBSTETRICS AND DISEASES OF WOMEN AND CHILDREN.

*Distinction*—Brown, S. R.; Maclean, W. L.; MacLellan, R. A.; Patton, Weldon W.; Reid, F. H.

*Passed*—Bruce, J. G.; McGarry, M. R.; McGarry, M. E.; McLeod, W. A.; Mosher, B. W.; Shatford, R. O.

# STUDENTS. 1907-1908.

## FACULTY OF ARTS AND SCIENCE.

(The number following the name indicates the year of the course of the student.)

Archibald, Alfred Arnold, 2 .....N. Westminster, B. C.
Archibald, Irene, 1 .....Mid. Musquodoboit.
Archibald, John Thomas, 4 .....Guysboro Co.
Armitage, Helen Dorothy, 1 .....Halifax.
Armitage, William Robert Ramsay, 3..Halifax.
Baker, Grace Josephine, 3 .....Dartmouth.
Balcom, Samuel Rosborough, 1 .....Port Dufferin.
Barnes, Albert Johnson, B. Sc. .....Halifax.
Bayer, Jean Gordon, 4 .....Halifax.
Bell, Hugh Philip, 1 .....Halifax.
Bethune, Roderick Owen, 2 .....Baddeck.
Black, Charles Guy, 3 .....Oxford.
Blois, Harry Morris, 1 .....Halifax.
Bowes, Florence Jane .....Halifax.
Boak, Charlotte Fillis, 1 .....Halifax.
Browne, Laurie Browne Ward, 4 .....Springhill.
Butler, George Kelley, 3 .....Liverpool.
Cameron, Albert Angus, 3 .....Glace Bay, C. B.
Cameron, Donald Alexander, 4 .....Sutherland's River.
Campbell, Alexander Rae, 3 .....Merigomish.
Chase, Margaret Cogswell, 3 .....Port Williams.
Chisholm, Stanley James, 2 .....Halifax.
Clay, Vera Blanche, 2 .....New Glasgow.
Collie, John Robert, 4 .....River John.
Colquhoun, Elizabeth Short..... Halifax.
Cornelius, Julius Robert, 2 .....Halifax.
Crawford, Agnes .....Halifax.
Creelman, Amelia, 3 .....Bass River.
Creighton, Henry Jermain, M. A. .....Dartmouth.
Creighton, Thomas McCully, 2 .....Dartmouth.
Crichton, Helen Ramsay, 1 .....Halifax.
Crowe, John Congdon, 3 .....Truro.
Crowell, Seth Wilson, 3 .....Yarmouth.
Cunningham, Frances Muriel, 4 .....Dartmouth.
Cunningham, Katherine Howe .....Dartmouth.
Cutler, Norah Fitzroy, 2 .....Dartmouth.
Davis, David Gray, B. A. .....Truro.
Davis, Harold Simmonds, 2 .....Truro.
Daviss, Beatrice Elinor, 2 .....Dartmouth.
DeBlois, Olive Sutherland .....Halifax.
Dennis, Agnes Miller, 4 .....Halifax.
Dewis, Martha Ellen, 2 .....Shubenacadie.
Dickie, Walter Reginald, 2 .....Stewiacke.
Dodd, Florence Ellen, 4 .....Shubenacadie.

Doull, James Angus, 1 .....New Glasgow.
Duffy, Leon Levett, 2 .....Hillsboro, N. B.
Earle, Bayne DeWitt, 1 .....St. John, N. B.
Earle, Chester Allan Moore, 1 .....St. John, N. B.
Eisnor, John J., 2.....Lunenburg.
Faulkner, Dora Guille, B. A. .....Halifax
Ferguson, Clarence Sydney, 3 .....Tangier.
Fielding, Vera .....Rockingham.
Flemming, Paul Rogers, 1 .....Halifax.
Forbes, Archibald Graham, 2 .....North Sydney, C. B.
Forbes, Evan McKenzie, 2 .....North Sydney, C. B.
Fraser, James, 3 .....Boularderie, C. B.
Fraser, James A, 3 .....New Glasgow.
Gass, Charles Leon, 1 .....Londonderry.
Giffin, Amy Clare, 3 .....Isaac's Harbor.
Gillies, John James, 4 .....Sydney, C. B.
Girdwood, William, B. A. .....Bathurst, N. B.
Goodwin, Gladys A. .....Halifax.
Gorham, Dorothy Constance, 2 .....Halifax.
Goudge, Mabel Ensworth, 4 .....Halifax.
Gourley, Cassie Isabelle, B. A. .....Sheet Harbor.
Grant, Frances Havergal, 3 .....Halifax.
Gunn, Helen Catherine, 1 .....East River St. Mary's.
Haliburton, Marion Frances .....Halifax.
Hall, Thomas Roy, 2 .....Sheet Harbor.
Hamilton, James Henry, 4 .....Burnside.
Harlow, Arthur Cornelius, 4 .....Shelburne.
Harris, Zaidee Alberta .....Halifax.
Hattie, Daniel .....Caledonia.
Hay, Clarence Gordon, 2 .....Richmond, N. B.
Hemphill, Annie G. .....Debec, N. B.
Herman, Arthur Kenneth, 2 .....Dartmouth.
Herman, George Evans, 2 .....Dartmouth.
Hill, Ruby, 3 .....Onslow.
Holder, Ella Geraldine, 1 .....Halifax.
Inglis, Katherine, 2 .....Halifax.
Inglis, Robert Ebenezer, 3 .....Lochaber.
Irvine, George Wilmot, 3 .....St. John, N. B.
Irving, Jennie .....Buctouche, N. B.
Irwin, George Allan Lyall, 1 .....Wine Harbor.
Irwin, Margaret Jean, 2 .....Wine Harbor.
James, Alan McKenzie, 1 .....Halifax.
Jones, Owen Bell, 1 .....Halifax.
Kemp, Hector Francis, 2 .....L'Archeveque, C. B.
Kendal, Emily Barnal .....Sydney, C. B.
King, Lewis Jack, 4 .....Buctouche, N. B.
Knowlton, James Edward, 1 .....Parrsboro.
Landry, Rene Wilfred .....Yarmouth.
Lawrence, Amos Jesse, 3 .....Southampton.
Learment, John Donald, 2 .....Truro.
Leitch, Roy, 4 .....Charlottetown, P. E. I.
Leslie, Eric, 2 .....Halifax.
Leslie, Kenneth, 1 .....Halifax.
Little, Ferguson Robert, 1 .....Halifax.
Livingstone, Grover Cleveland, 2 .....Harcourt, N. B.
Lordly, Emma R .....Chester.
Mack, Frank Gordon, 2 .....Halifax.
MacAloney, Kathleen Isabelle, 2 .....Rockingham.

McCurdy, Mabel D. .....Parrsboro.
Macdonald, Alexander Thomas, 2 ....Reserve Mines, C. B.
Macdonald, Angus Dan, 1 .....Skir Dhu, C. B.
Macdonald, Annie Josephine, 3 .....West Bay, C. B.
McDonald, Donald William, 3 .....Earltown.
Macdonald, James Clarke, 1 .....Sydney, C. B.
Macdonald, Madge, 3 .....Halifax.
Macdonald, Roderick Augustus, B. A..Halifax.
Macdonald, Victoria Alberta .....Halifax.
Macdonald, Zillah K. .....Halifax.
MacGregor, Jean Emmeline, 1 .....Amherst.
McInnes, Charles John, 4 .....Lake Ainslie, C. B.
McIntosh, John Philip, 2 .....Pleasant Bay, C. B.
McKay, Alexander, 3 .....Emerald, P. E. I.
McKay, Alexander Gidney, 3 .....Dartmouth.
Mackay, Barbara Lois, B. A. .....Dartmouth.
Mackay, Georgina Marion, 2 .....Reserve Mines, C. B.
Mackay, Helen Stuart, 2 .....Bridgewater.
McKay, Jamieson Fraser, 4 .....New Glasgow.
Mackay, Malcolm, 4 .....North Earltown.
MacKeigan, John Angus, 4 .....Sydney, C. B.
McKenzie, Charles Edward, 2 .....Springhill.
MacKenzie, Helen Stuart .....Halifax.
MacKenzie, Seymour Gourley, 1 .....Truro.
MacKinnon, Alexander Edward, 4 ....Strathlorne, C. B.
McKinnon, Roderick William, 2 .....North Sydney, C. B.
McLean, Daniel Redmond, 4 .....Pictou.
McLean, John Grant, 3 .....Thorburn.
McLean, William Buchanan, 1 .....Sydney, C. B.
McLennan, John C, 2 .....Big Bras d'Or, C. B.
McLennan, Kenneth John, 2 .....Grand River, C. B.
McLeod, Angus 1 .....Wreck Cove, C. B.
McLeod, Beverley Frank, 4 .....Penobsquis, N. B.
Macleod, James Duncan, 2 .....Scotsburn.
Macleod, Mabel D. .....Parrsboro.
McLeod, Mabel Elizabeth, 3 .....Penobsquis, N. B.
McLeod, Murdoch Dan, 1 .....Wreck Cove, C. B.
McLeod, Ronald, 4 .....Scotland.
MacMillan, Victoria Katherine, 3 ....West Bay, C. B.
MacNeil, John, 3 .....Glace Bay, C. B.
MacRitchie, John James, 4 .....Englishtown, C. B.
Major, Reginald Artz, 1 .....Halifax.
Malcolm, William Wallace, 3 .....St. John, N. B.
Manuel, Murray Hayward, 4 .....Hawkshaw, N. B.
Marshall, Helen Annie Blanche, 4 ....Halifax.
Marsters, Gladys May, 2 .....Halifax.
Matheson, Howard Watson, 2 .....Lime Rock.
Maycock, Elizabeth Jane, 3 .....Halifax.
Milligan, Francis Millidge, 2 .....Bear River.
Morash, Sara Marguerite, 1 .....Cole Harbor.
Moriarty, Peter F. .....Halifax.
Morrison, William Gladstone, 1 .....Folly Village.
Muise, James Bernard, 3 .....Weymouth.
Munro, Ernest Alexander, 4 .....Antigonish.
Munro, Kathry S .....
Munro, Kenneth McLeod, 3 .....Boularderie, C. B.
Munro, Mossie Mildred, 1 .....River John.
Murphy, Clare, 3 .....Halifax.

Murphy, Ethel, 4 ..... Moncton, N. B.
Murray, Charles Dempster R., 3 ..... Hopewell.
Neish, Robert Arthur, 1 ..... Halifax.
Nicholson, Daniel ..... Halifax.
Nicholson, Margaret ..... Halifax.
O'Brien, Nora Ephrem, 2 ..... Halifax.
Outhit, Marion Currie, 1 ..... Halifax.
Patterson, Mabel G. ..... Three Fathom Harbr.
Perry, William Joseph, Geoffrey, 1 ... Black Point.
Porter, Alexander Murray, 3 ..... Alma.
Porter, Sarah Elizabeth, 3 ..... Alma.
Power, Nora Neill, 4 ..... Halifax.
Prisk, Iva Grace, 2 ..... Halifax.
Quinan, Josephine Elizabeth ..... Halifax.
Raynor, Laura May, 2 ..... Enmore, P. E. I.
Read, John Erskine, 3 ..... Halifax.
Read, William Kiever, 4 ..... Athole.
Rettie, Alexander, B. A. ..... Stillman.
Reynolds, Horton Munro, 1 ..... Halifax.
Rice, George Edward Anthony, 2 ..... Bear River.
Ritchie, Henrietta McColl, 1 ..... New Glasgow.
Robertson, Alexander William, 2 ..... Bridgeville.
Roper, John Shenstone, 2 ..... Halifax.
Rosborough, Wilmer Brydone, 3 ..... North Sydney, C. B.
Ross, Albert, 2 ..... New Glasgow.
Ross, Margaret Irving, 1 ..... St. John, N. B.
Ross, William Alexander, 1 ..... St. John, N. B.
Roy, James Louis, 1 ..... Bedford.
Rudin, Henry Albert, 2 ..... Port-o'-Spain, W. I.
Seaman, Lily Hamilton, 3 ..... Charlottetown, P.E.I.
Sibley, Lena Mildred, 3 ..... Halifax.
Silver, Beryl St. Clair ..... Halifax.
Silver, Harold Edward, 1 ..... Halifax.
Silver, Marguerita Hattnal Louise, 2 .. Halifax.
Sinclair, Donald Carmichael, 3 ..... New Glasgow.
Smith, Arthur Walton Leslie, 4 ..... Annapolis.
Smith, Gladys May, 2 ..... Halifax.
Smith, Gladys Una, 1 ..... Halifax.
Smith, Mary Emily Stanfield, 2 ..... Truro.
Smith, Minnie Lenore, 2 ..... Sydney, C. B.
Stairs, George William, 4 ..... Halifax.
Stewart, James MacGregor, 3 ..... Pictou.
Stewart, Florence MacGregor, 1 ..... Dartmouth.
Strickland, Winifred Claire ..... Halifax.
Sutherland, Althea Florence, 1 ..... Halifax.
Sutherland, Archibald, 2 ..... Trenton.
Sutherland, John Sanders, B. A. ..... Halifax.
Sylvester, George McDonald, 1 ..... New Glasgow.
Thomas, Arthur Ogden, 3 ..... Truro.
Thompson, Lewis Murdoch, 2 ..... New Glasgow.
Thomson, Euphemia May, 3 ..... Halifax.
Thorne, Emilie Jesse, 2 ..... Dartmouth.
Titus, Robie Leslie, 3 ..... Digby Co.
Tolson, Harry Stanislaus, 4 ..... Bedford.
Tupper, Frances Beatrice ..... Boston, Mass.
Tupper, Grace Marjorie, 3 ..... Bridgewater.
Umlah, Lillie Alberta Boak, 2 ..... Halifax.
Walker, Eliza Clara, 3 ..... New Glasgow.

Wallace, Curtis Clayton, 3 .....Halifax.
Watson, Robert Anderson, B. A. .....Baddeck Forks, C. B.
Watts, William Henry .....Halifax.
Weatherbee, John Alexander Thos., 1..New Glasgow.
Webber, Kathleen Jackson, 4 .....Sackville, N. S.
Whidden, William Arthur, 2 .....Brookfield.
Whitman, Katherine McNeil, 2 .....Halifax.
Wier, Elspeth May, 1 .....Halifax.
Wilson, Alice Mary .....Dartmouth.
Wilson, Winifred May .....Halifax.
Wiswell, Gordon Blanchard, 2 .....Halifax.
Wood, Hilda Pauline .....Halifax.
Yeoman, Eric MacKay, 4 .....Halifax.

---

## FACULTY OF ENGINEERING:

Allan, Edward Blake, 3 .....Halifax.
Archibald, Frank Rogers, 3 .....Halifax.
Brown, Geoffrey Morrow, 1 .....Halifax.
Cahan, John Frederick, 3 .....Halifax.
Campbell, James Arthur, 1 .....Merigomish.
Cavanagh, Harry, 3 .....New Glasgow.
Cavanagh, John Loraine, 1 .....New Glasgow.
Chapman, Edward Willard Gordon, 1..Halifax.
Chisholm, Kenneth Gordon, 2 .....Halifax.
Chute, Clyde Clifton, 1 .....Berwick.
Collingwood, Douglas Moore, 1 .....Boscombe, Eng.
Creighton, Charles Sydney, 1 .....Dartmouth.
Crichton, Gordon Lithgow, 4 .....Halifax.
Cutler, John Geoffrey, 1 .....Dartmouth.
Dawson, Francis Murray, 2 .....Truro.
DeBlois, Thomas Melville, 3 .....Halifax.
Dimock, Clarence Lewis, 2 .....Newport.
Ferguson, Alexander, 4 .....Halifax.
Flemming, Horace Waldo, 4 .....Halifax.
Fraser, Martin Luther, 2 .....West River.
Fraser, William Kenneth, B. A., 2 ...Halifax.
Freeman ,Robert Porter, 1 .....Halifax.
Gaherty, Geoffrey Abbott, 3 .....Halifax.
Hall, Walter Elten, 1 .....Sheet Harbor.
Hardy, Thomas Woodburne, 3 .....Halifax.
Hillis, Wilfred Elmer, 1 .....Halifax.
Hills, Benjamin Wesley, 4 .....Halifax.
Kent, Edward Sherburne, 2 .....Truro.
Layton, Max McDonald, 1 .....Great Village.
McColough, Reginald Walker, 2 .....Halifax.
McCunn, George Basil, 3 .....River John.
McDonald, Charles Hugh, 2 .....Sydney, C. B.
Macdonald, James Gordon, 1 .....Truro.
MacGillivary, John Alexander, 1 .....New Glasgow.
MacIntosh, Robert Murray, 1 .....New Glasgow.
MacKay, James Arthur, 1 .....Balmoral Mills.
Mackay, Neil William, 2 ..... Balmoral Mills.

McKean, Douglas Russell, 1 .....West LaHave.
Mackenzie, Chalmers Jack, 3 .....St. Stephen, N. B.
McLean, Alexander Stirling, 3 .....West Bay, C. B.
McLean, Donald, 1 .....St. John's, Nfld.
McMillan, John P, 4 .....Ainslie Glen, C. B.
MacRae, Neil Charles, 1 .....Canoe Cove, P. E. I.
Mahon, Harry Wendell, 2 .....Truro.
Mitchell, Edward Frederick, 1 .....Halifax.
Mitchell, Walter, Jr., 1 .....Halifax.
Morrison, Bernard Houseal, 2 .....Stellarton.
Morrison, Edward Sanborn, 4 .....Milltown, N. B.
Murphy, Gerald Francis, 4 .....Halifax.
Mylius, Louis Aubrey, 1 .....Halifax.
Putnam, Walter, 2 .....Maitland.
Ralston, Norman Chester, 2 .....Amherst.
Simmonds, James Roland, 1 .....Dartmouth.
Stairs, Denis, 3 .....Halifax.
Stairs, Gordon Salter, 1 .....Selma.
Thorne, Edward Lefferts, 3 .....Dartmouth.
Wall, Arthur Stanford, 4 .....Truro.
Wickwire, Dwight Stanley, 4 .....Halifax.
Williston, Charles Hedley, 1 .....Halifax.
Wood, Robert Ferrier Burns, 2 .....Halifax.

---

## FACULTY OF LAW.

### UNDERGRADUATES.

#### THIRD YEAR.

Archibald, James Ross, B. A. (Dal.).....Truro.
Armstrong, William Boardman.....Truro.
Cahan, Charles Hazlitt, Jr.....Halifax.
Corey, Lloyd Allison.....Petitcodiac, N. B.
Doyle, Ernest Frederick.....Halifax.
Fraser, Alister, B. A. (Dal.).....Halifax.
Hanway, James Albert.....Truro.
Hearn, John Harvey, B. A. (St. F. X.).....Sydney, C. B.
Jonah, Everett Bruce, B. A. (U. N. B.)....Fredericton, N. B.
Leger, Joseph Theophile.....Richibucto, N. B.
Macdonald, Wm. Chisholm, B. A. (St. F. X.) Bailey's Brook.
MacKenzie, Ewen Cameron, B. A. (Dal.)...Flat River, P. E. I.
Margeson, Joseph Willis.....Berwick.
Morrison, John Lauchlin.....St. Peter's.
Patterson, Henry Stuart, B. A. (Dal.).....Tatamagouche.
Ritchie, Joseph Norman, B. SC. (McGill)...Halifax.
Rive, Rupert Maxime, B. A. (St. F. X.)....Caraquet, N. B.
Russell, Arthur Hawthorne.....Dartmouth.
Slipp, Arthur Lawrence.....Woodstock, N. B.

SECOND YEAR.

| | |
|---|---|
| Chase, Harold Munro | Sheffield Mills. |
| Clark, Collingwood Steeves | Moncton, N. B. |
| Frame, Arthur Cochrane | Halifax. |
| Gillies, John James | Sydney, C. B. |
| Lordly, Lionel Robert | Chester. |
| MacKenzie, Colin, B. A. (St. F. X.) | Red Island, C. B. |
| Maclellan, Robert Wm., B. A. (Dal.) | Halifax. |
| Martin, John Joseph, B. A. (St. F. X.) | Lourdes. |
| Menzie, Harry Weston | Tatamagouche. |
| Pelton, Gerald Vincent | Yarmouth. |
| Prowse, James Harper, B. A. (Dal.) | Halifax. |
| Rettie, Samuel, B. A. (Dal.) | Stillman. |
| Robertson, Robert Burnby Hume, B.A. (Dal.) | Barrington. |
| Smith, Don Cecil | Halifax. |

FIRST YEAR.

| | |
|---|---|
| Adair, George Hazen | Apohaqui, N. B. |
| Cameron, John Joseph | Heatherton. |
| Chapman, Cyril Gilbert Moran | Dorchester, N. B. |
| Craig, Kenneth Gordon | Amherst. |
| Doull, John | New Glasgow. |
| Farquhar, George, B. A. (Dal.) | Newport, Hants. |
| Macdonald, Wm. Alexander, B. A. (St. F. X.) | Port Hood. |
| MacKinnon, Colin F., B. A. (St. F. X.) | Antigonish. |
| Richard, Ernest René, B. A. (St. Jos.) | Dorchester, N. B. |

GENERAL STUDENTS.

| | |
|---|---|
| Black, Charles Guy | Oxford. |
| Cameron, Donald Alex. | Sutherland's River. |
| Chipman, Charles Rupert | Tupperville. |
| Conroy, Frederick Roue | Charlottetown, P.E.I. |
| Day, William Rivers | Parrsboro. |
| Farquhar, Alex. | Newport, Hants. |
| Hall, Thomas Roy | Sheet Harbor. |
| Hattie, Daniel E. | Caledonia. |
| Landry, René Wilfred Emilien | Yarmouth. |
| Lawrence, Amos Jesse | Southampton. |
| Macdonald, Stewart John | Marble Mountain. |
| McKay, Alexander | Emerald, P. E. I. |
| McKinnon, Alex. Edward | Strathlorne, C. B. |
| Maclean, Matthew | Sydney Mines. |
| McLeod, Beverly Frank | Penobsquis, N. B. |
| MacNeil, John | Glace, Bay, C. B. |
| Morton ,Arthur Cranswick | Guysboro. |
| Munro, Kenneth McLeod | Boularderie, C. B. |
| Putnam, Loring Harrison | Maitland. |
| Rice, George Edward | Bear River. |
| Robinson, Louis McKenna | Berwick. |
| Roper, John S. | Halifax. |
| Rosborough, Wilmer Brydone | North Sydney, C. B. |
| Sinclair, Donald Carmichael | New Glasgow. |
| Stairs, George William | Halifax. |
| Starr, Allan Phillips | Halifax. |
| Stewart, James MacGregor | Pictou. |
| Temple, Thomas Alexander | Waverley. |
| Thomas, Arthur Ogden | Truro. |
| Tolson, Harry S. | Bedford. |

# FACULTY OF MEDICINE.

## UNDERGRADUATES.

### FOURTH YEAR.

| | |
|---|---|
| Brown, Samuel Ritty | Shelburne. |
| Bruce, James Garfield | Barney's River, Pictou. |
| McGarry, Michael Richard, *B.A.* (St. F.X.) | Margaree, Inv. |
| McGarry, Moses Elijah | " " |
| Maclean, Walter Leonard | Halifax. |
| MacLellan, Robert Augustus | Goldboro, Guysb. |
| McLeod, William Arthur | Lansdowne, Pictou. |
| Mosher, Byard William | Kempt Shore, Hants. |
| Patton, Weldon Wood | Rcslin, Cumb. |
| Reid, Frank Henry | Nictaux. |
| Shatford, Ralph Owen | Indian Har., Halifax. |
| Thibault, Siffroi Henry | Salmon River, Digby. |

### THIRD YEAR.

| | |
|---|---|
| Calder, Allister | Springville, Pictou. |
| Cox, Frederick Austin | Upp. Stewiacke, Col. |
| Davis, Percy Douglas | Clifton, Col. |
| Grant, Hector Alexander | Boulardarie East, C. B. |
| Hennigar, Clyde Straughn | Chester. |
| Johnston, Stephen Reginald | Dartmouth. |
| Macdonald, John Alexander | Har. au Bouché, Antig. |
| Maclellan, Edward Kirk | Halifax. |
| Maclellan, Robert Gordon | Pictou. |
| Moilliet, Alexander Keir | Great Malvern Wor., England. |

### SECOND YEAR.

| | |
|---|---|
| Beaton, John | Moose Creek, Ont. |
| Bober, Bessie Angela, *B.A.* (Kings) | Windsor. |
| Burris, Matthew George, *B.A.* (Dal.) | Upp. Musquodoboit. |
| Coffin, William Vernon | Bristol, P. E. I. |
| Horne, Albert Edward | Halifax. |
| Lindsay, Walker Stewart, *B.A.* (Dal.) | Halifax. |
| MacAskill, Frederic Graham | St. Peter's, C. B. |
| MacAulay, Daniel Angus | Englishtown, C. B. |
| MacDonald, John James, *B.A.* (St. F.X.) | New Glasgow. |
| Macdonnell, Peter Winfred Smythe | Port Hood, Inv. |
| MacKay, Mary Jane | Trenton, Pictou. |
| Roy, Alexander Kerr, *B.A.* (Dal.) | Maitland, Hants. |
| Saunders, Reginald McKean | Clarence West, Annap. |
| Stramberg, Charles William | River John, Pictou. |

FIRST YEAR.

| | |
|---|---|
| Atlee, Harold Benge | Annapolis Royal. |
| Balcom, Bessie Euphemia | Aylesford. |
| Barnes, William Fielding | Halifax. |
| Beaton, William Joseph Archibald | Weymouth Bridge. |
| Brison, Elizabeth Perley | West Gore, Hants. |
| Cameron, Albert Angus | Glace Bay. |
| Cameron, Clarence Bain | New Glasgow. |
| Collie, John Robert Mitchell | River John, Pictou. |
| Creighton, Thomas M'Cully | Dartmouth. |
| Davis, Frank Roy | Petite Riviere. |
| Dennis, Agnes Miller | Halifax. |
| Deveau, Alfred Joseph | Meteghan, Digby. |
| Goodwin, Guy Stuart | Halifax. |
| Grant, Harry Goudge | Halifax. |
| Harrigan, David James | Sydney Mines. |
| Herdman, William Walker | Pictou. |
| Holdsworth, Percy William | Digby. |
| Johnson, Arthur Morrell | Tatamagouche. |
| Kenney, William Francis | Halifax. |
| MacAulay, John Philip | Englishtown, C. B. |
| MacLeod, Donald Angus | Point Tupper, C. B. |
| MacLeod, John Roderick Bethune | Grand River, Richm. |
| MacRitchie, John James | Englishtown, C. B. |
| Mack, Frank Gordon | Halifax. |
| Murdoch, John Allan McIntosh | Sherbrooke. |
| Raynor, Laura May | Enmore, P. E. I. |
| Read, John Erskine | Halifax. |
| Schwartz, Hugh William | Halifax. |
| Siderski, Louis | Glace Bay. |
| Titus, Robie Leslie | Westport, Digby. |

GENERAL STUDENT.

| | |
|---|---|
| Chisholm, Stanley J. | Halifax. |

UNIVERSITY OF MICHIGAN
3 9015 06581 3522